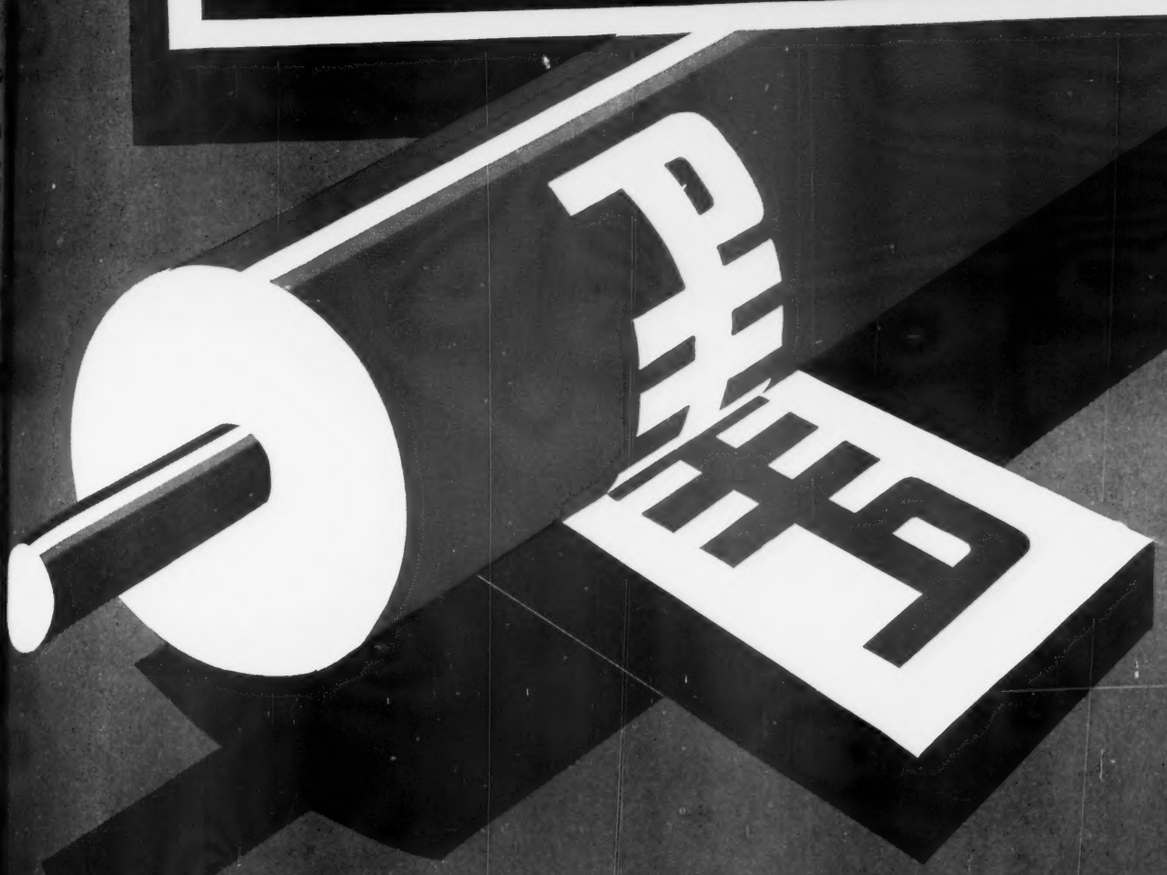
Printing Equipment Engineer



MAY, 1942

★ ★

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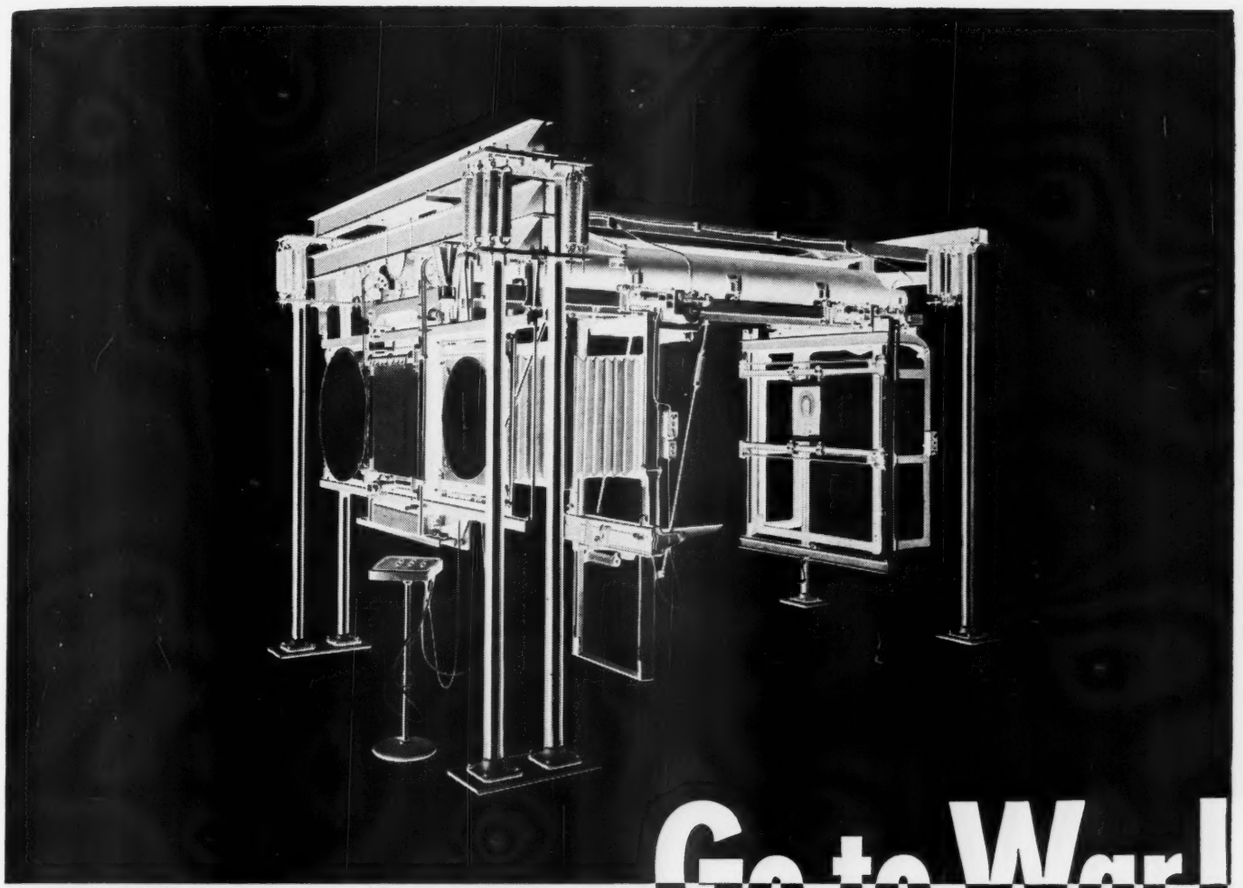

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The following list has been issued by WPB to show materials available in significant quantities for use as substitutes for critical materials:

Asbestos (Common)	Concrete	Lumber and Millwork	Slate
Asphalt	Cotton	Mineral Wool	Sulphur
Brick and Tile	Feldspar	Paper	Wall Boards
Cement	Glass	Paperboard	Wood and Products
Ceramics	Gold	Plywood	Wood Flour
Clay	Lignin	Salt	Wood Fibres
Coal and Coke	Limestone and Marble	Silver	Wood Pulp

MATERIALS AVAILABLE IN VARYING AMOUNTS FOR SUBSTITUTIONS:

Ammonia (aqueous)	Petroleum Products	Plastics	Silicon and Alloys
Bismuth	Crude Oil	(cellulose,	Sodium Nitrate (Chile)
Cellophane	Gasoline	acetate,	Soy Beans and Products
Cottonseed Oil	Lubricating Oil	butyrate)	Protein
Gypsum and Products	Paraffin	Rhodium	Turpentine
Hair (cow, horse)		Rosin	

GEORGE A. RENARD, *Acting Chief*, Printing and Publishing Branch

Further Explanations of WPB Orders Affecting Printing Industry

EXPLANATIONS of recent War Production Board regulations and orders which directly concern the Printing and Publishing Industry were made on April 9 by George A. Renard, Acting Chief of the Printing and Publishing Branch of the War Production Board. The statement is designed further to acquaint members of the industry with the availability of many items involved in manufacturing operations. The information supplements a similar release (T-166) issued March 18, 1942 and brings the situation up to date. This release, (T-199), Mr. Renard suggests, should be compared with the T-166 release, to which reference is made frequently.[1]

ADHESIVES: Unchanged since March 18, 1942 (Release No. T-166).

ALUMINUM: In order to receive consideration, users of powder, paste, ink and leaf should immediately submit their inventory of each kind, and the quantity of each kind used in 1941. This information should be sent to Protective and Technical Coatings Section, Chemical Branch, War Production Board, Washington, D. C. Ref: M-1-g. (Aluminum Orders are Nos. M-1 to M-1-g, inclusive.)

ANTIMONY: Order No. M-112, effective March 30, 1942, restricts the use of antimony and puts the supply under allocation. This will have little effect on the use of antimony in type and backing metals. Restrictions will require closer control of antimony content by metal refiners.

BOARD: Binders', pasted and chipboard deliveries, are improving as a result of increased flow of waste-paper.

CASEIN: There is no shortage of casein and no shortage is anticipated.

CELLOPHANE: Provisions of Order L-20 extended indefinitely. Use for window envelopes is now prohibited.

CHLORINE: No further limitations effective before May 1.

CHROMIUM: Unchanged since March 18, 1942 (Release No. T-166).

COAL: Anticipate shortages in coal cars for transportation. It is recommended that plants build up their coal stockpile before the end of the summer. Official exemption from inventory restrictions has been granted, to encourage building adequate reserves of coal.

[1] *Editor's Note:* Release No. T-166 was published in the April issue of *Printing Equipment Engineer.*

COPPER: Unchanged since March 18, 1942 (Release No. T-166), except for bronze powder, etc. Order M-9-c-3 sets a deadline of May 31, 1942 for use of bronze powder, paste, ink and leaf in the printing industry. However, the Order permits any user who had a stock of these items on hand March 31, to use in the two-months' period ending May 31 one-sixth of his 1941 usage.

It is important to note that any such user must, before April 20, 1942, write to the War Production Board, Washington, D. C., Reference M-9-c-3, stating his inventory of bronze powder, paste, ink or leaf (as of March 31, 1942), and stating his use of these items during the year 1941. This letter must be submitted in quadruplicate.

It is expected that bronze leaf makers will be permitted to sell completed stock on hand.

Uses of copper and copper products (other than bronze leaf, ink and powder as explained above) by the printing and publishing industry and related trades are not deemed decorative and are governed by the general provisions of Order M-9-c, which limits the use of copper in any quarter to approximately 70% of the amount used in the last quarter of 1940.

Copper scrap Order M-9-b, which was to have expired on March 31, has been extended indefinitely. Specified authorization which had been granted to individual companies for using copper scrap will likewise be extended beyond the March 31 limit placed on them. Electrotypers (and plants having electrolytic tanks), who wish to use copper scrap in their operations must apply to the War Production Board, Reference M-9-b, stating the conditions under which they propose to use copper scrap.

The copper situation has become increasingly serious, and additional restrictions may be expected.

FABRICS: Unchanged since March 18, 1942 (Release No. T-166).

GLYCERINE: Order M-58, issued March 30, places all deliveries of glycerine in excess of 50 pounds per month under allocation control, effective May 1. At present, the Order does not restrict use of glycerine for glue-glycerine rollers and for roller-coating, but it does limit to 70% of 1940 usage the glycerine made into adhesives for book and magazine production. (The 70% limitation applies to adhesives, because the A-10 rating cannot be used for material incorporated in the product. Rollers are operating suppliers, entitled to the A-10 "defense" rating.)

INK: The recently issued ink orders principally concern ink manufacturers, including those printers who make their own ink, and will have little or no immediate effect upon the consumer. Copies of the orders (M-53 and P-94, 4/1/42) have been sent to the entire mailing list.

INVENTORIES: Corrections in wording should be made at the top of page 2 of Release T-166.

In the paragraph headed *Processing Supplies*, insert the word "not" before the words "in excess of", at the end of the second line.

In the paragraph headed *Operating Supplies*, insert the word "not" before "in excess of" in the fourth line of the paragraph.

LEAD: Unchanged since March 18, 1942 (Release No. T-166).

MAGNESIUM: Unchanged since March 18, 1942 (Release No. T-166).

NICKEL: Beginning with the month of April, the allocation of nickel to the industry will be reduced from 10,000 pounds per month to 7500 pounds per month.

OFFICE MACHINERY: Wide carriage typewriters and shorthand writing machines have been excluded from sales, rental and distribution restrictions under an amendment issued March 24, 1942 (Release No. W.P.B. 647).

PAPER: Mill deliveries are improving considerably; fine writings and kraft are still moderately tight and probably will continue so. Carton deliveries have improved.

Newsprint price will continue at $50 (New York) per ton for the next 60 days at least.

O. P. A. have sent out voluntary price agreements for signature on many coarse and fine papers, including book. (30730-PM 2807). Prices are comparable to those now in use.

Flow of waste paper to the mills is increasing steadily.

PULP: Order M-93 places all wood pulp under allocation beginning May 1, 1942. This concerns manufacturers and converters and will have little effect on the consumer until War needs for pulp and paper have increased over current demands.

SLIDE FASTENERS: Use of certain metals for making "zippers" is prohibited for many purposes by Order L-68, effective April 1. However, the Order as now written permits use for bibles, testaments and other printed books.

TIN: M-43-a (Amended), effective 3/17/42, places further prohibitions on the use of new tin; it limits secondary (scrap) tin to the 1940 rate of usage for refining and toning of type-metals.

The use of solder and tinfoil with a maximum tin content of 38% is permitted up to May 1, after which the maximum will be 30%.

Any user in the Printing and Publishing Industry having on hand on May 1, solder and tinfoil with more than 30% tin content must discontinue its use on that date, and must write to the Printing and Publishing Branch, W. P. B., Temporary Building "E", 3rd Floor, 5th Wing, Washington, D. C., listing inventory of each kind, with the formula, for instructions as to further use or disposition.

Each user of solder and tinfoil should secure before May 1, 1942, a supply of material containing not more than 30% tin.

TIRES: The rubber situation continues serious. With increasing demands for War uses, it is unlikely that tires or re-treads will be available in any quantity for use in our industry.

ZINC[2]: Pool requirements for April were increased from 50% to 60% on high-grade and special high-grade metal only; otherwise, the situation is unchanged since March 18, 1942 (Release No. T-166).

[2] *Editor's Note:* Under an amendment to Order M-11, issued on May 1, by WPB, metallic zinc will be placed under complete allocation on June 1. Each consumer must apply monthly under the allocation certificate system for his needs. Order No. M-11-a was issued simultaneously, establishing the May zinc pool requirements at 75% of January production for high grade and special high grade, and 50% for all other grades of slab zinc. The rate for zinc oxide was set at 10% of January output. No zinc dust will be set aside.

Takes Prize in Bonds

Dixie Lonsdale, of Santa Monica, Calif., 14 years old, has shown that she wants to do her part to help America on the ro' to victory. Dixie has just been awarded second prize in International Printing Ink's national essay contest in which 8000 students of printing competed. The prize was a trip to New York, N. Y., by plane with all expenses paid.

Dixie's mother, Mrs. Davida Lonsdale, works at the Douglas Aircraft plant, helping to build planes.

Dixie has decided not to go to New York. Instead, she asked that she be given the cost of this trip in Defense Bonds. Accordingly, the $250.00 in Defense Bonds were presented to her during assembly at the Lincoln Junior High School, where she is a student. The presentation was made by C. A. Whistler, Los Angeles Manager of International Printing Ink, sponsors of the contest.

Left to right: Donald Douglas, President of Douglas Aircraft; Dixie; Dixie's mother, Mrs. Davida Lonsdale; C. A. Whistler, Los Angeles representative of Ipi.

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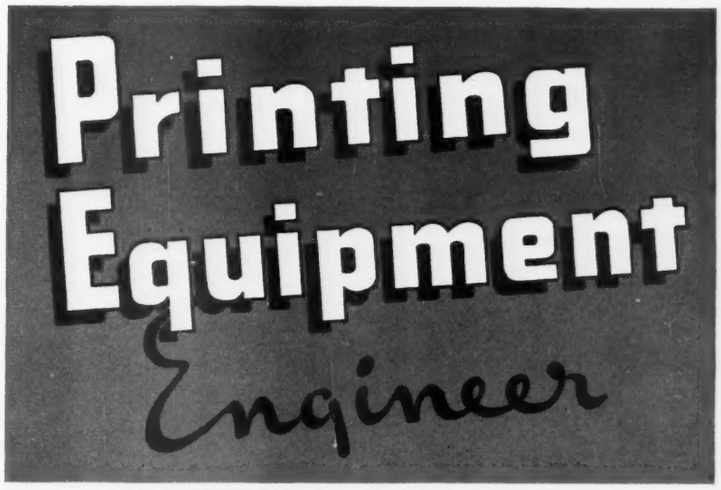

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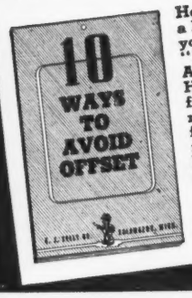

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Partial Conversion Not a Boogie-Man

(If Handled Properly)

EVER since war's requirements have been bearing down upon industry in general, and especially in view of the remarks made by W.P.B.'s Chief Industrial Consultant E. W. Palmer of the Printing and Publishing Branch, before the Chicago meeting of the Graphic Arts Association of Illinois recently, many progressive executives in the printing industry have been considering ways and means of utilizing printing plant equipment for war production. As normal business has been falling off, the necessity for replacing regular work with war work of some kind has become increasingly apparent.

In his Chicago address, Mr. Palmer rather pointedly remarked that all printers who can do so should begin manufacturing some war necessity in their plants to avoid Governmental conversion.[1] Since then several statements have been made by WPB representatives which make it appear that partial conversion of printing plants is a serious war objective.

There isn't the least doubt but what members of the industry in general will be only too glad to take on work for war purposes which can be produced with their equipment, but the problem has been to find such work.

Many plants throughout the country have been engaged in producing large-run overflow governmental printing with regular printing equipment for months. Unfortunately, not all plants are equipped to produce printed matter required by the Government because of the size of the orders, even if they were fortunate enough to secure such work. Other printing plants have been using those presses which are suitable for the purpose for diecutting of one kind or another for war purposes. In the latter work, several firms have been punching out gas mask materials on Miehle Vertical presses. Other instances in which printers have found ways and means for doing essential war work no doubt will come to light at an early date.

In this issue, conversion of printing plant maintenance machine tools is discussed by Chief George A. Renard of the Printing and Publishing Branch of W.P.B. This discussion, however, does not take into consideration the equipment used for regular production work in the various branches of the Graphic Arts Industry.

It seems to *Printing Equipment Engineer* that the problem of printing plant conversion to war work is one of cooperation and trade unity. Here and there, of course, individual firms in the Graphic Arts Industries have secured essential war work through their own initiative and enterprise. It appears, however, that if each branch of the industry would pool this activity through a central body of some kind, results would be forthcoming promptly.

We like the proposed plan of a small group of forward thinking executives in the printing plate manufacturing industry. This group consists of photo-engravers, electrotypers, stereotypers and molded rubber plate makers. While the executives who have been gathering data concerning the war materials manufacturing possibilities of their group do not speak for the entire plate-making industry, yet the way is being paved so that the entire plate-making industry can participate.

In the accompanying table it is shown that there are 1300 plate-making plants of one kind or another employing 35,450 people. It is estimated that all of these plants are now operating at an average of 60% or less normal productivity, because of the falling off of advertising and printing volume. It is also recognized that about 10% of the present production volume of these plants is devoted to high priority work (A-5 or better).

In the plate-making industry some known war production work being done by different methods is as follows:

Photo-engraving and Lithography — Several plants are engaged in making sheet steel templates for aircraft production. The cameras used in these trades offer a means for producing templates which will locate rivet holes on a precision basis. In addition, the templates may be produced in less time than by any other means and with remarkable precision. It is reported that at least one firm possessing a step-repeat camera is making fine-mesh carburetor screens from a single piece of metal, which is superior to the woven wire product.

Electrotyping — Several isolated instances of building up undersized parts by heavily plating them with copper have been reported. A few electroformed copper parts for subsequent use as patterns have been made.

Molded Rubber Plates — It is reported that some use is being made of rubber printing plates in Canada for marking ("printing") war materials.

In the group of persons engaged in exploring and compiling facilities of the plate-making industry for essential war work are R. H. Schwarz and J. Homer Winkler of the Ace Electrotype Company, Cleveland. In the compilation, the kinds of equipment used in each branch of the industry together with essential technical processes are tabulated.

When completed, the compilation can be used to discuss intelligently with prime and sub-contractors the possibilities of turning over to the plate-making industry such work as can be executed by it. In this manner, the plate-making industries can save

[1]See page 14, March issue of *Printing Equipment Engineer*.

their existence and will be doing their part in helping to win the war.

In spite of the general idea that the printing industry's equipment cannot be utilized for manufacturing what heretofore may have been considered unseemly products, we feel that open-minded analyses will bring to light innumerable operations that can be performed with printing and plate-making equipment. The remaining problem is to convince the prime war contractor or even the sub-contractor that such facilities are desirable. After all, the contractors are not aware of the facilities available in the Graphic Arts Industry, and are too busy to investigate. The printing industry — like Mahomet — must go to the mountain.

Letterpress Plate-Making Industry

In the accompanying article it is shown that there are 1300 letterpress plate-making plants in the United States employing approximately 35,450 people. The units in this division of the Graphic Arts Industry are broken down as follows:

Photo-engraving.....	700 Plants	25,000 Employees
Electrotyping.....	300 Plants	9,000 Employees
Stereotyping.....	200 Plants	1,000 Employees
Molded Rubber Printing Plates.....	50 Plants	250 Employees
Wax Engraving.....	50 Plants	200 Employees
	1,300 Plants	35,450 Employees

Because of the nature of the technical processes used in these plants for producing regular work and the present deficient volume of work, it has been suggested that partial conversion of these plants to essential war work could be accomplished without great difficulty.

Alternative of printing plants having maintenance machine tools is to get into war production and condense establishment suitable to volume of printing business available

WAYS and means of utilizing the full capacity of the printing and publishing industry for the war effort through converting printing plant facilities to war production were outlined recently in a statement by George A. Renard, Chief of the Printing and Publishing Branch of the War Production Board.

"The armed forces, the federal government and the war plants require a tremendous amount of printing; much printing is essential to public health and civilian welfare," said Mr. Renard. "These demands, large though they be, do not utilize the full capacity of the printing industry, employing in normal times some 600,000 people. Therefore, the part of our industry which finds that the total war effort has removed the demand for its product is faced with the alternative of getting into war production or going out of business.

"Printing machinery, by and large, is capable of producing only printing. This, combined with the fact that the industry is spread all over the country and in many cases consists of small plants, gives it a very low potential for complete conversion. The one place in which it fits directly into the conversion picture is in the machine tools which some of the large plants have for maintenance and repair. Steps are now being taken to survey these captive repair shops so that their tools—large engine lathes, large boring mills and large milling machines, can be used to best advantage.

Get Into Metal Working Business

"Let us assume that a given printing plant has sufficient business to operate at only 20% capacity. The first step is to condense machinery, working force and overhead to the size necessary to turn out this volume of printing on a profitable basis. Thus, a plant capable of doing $500,000 worth of annual business must cut itself down to an establishment capable of doing only $100,000 worth of business. Excess machinery can be sold or dismantled for the duration, leaving the printer with capital, management, floor space and going business organization as assets for launching his new venture.

"The next step is to attempt to employ a man who is well-versed in machine shop practice, assuming that the printer is not. This is probably the most difficult step of all; such men are in great demand today, and even the plants engaged entirely in war production are finding trouble in getting them.

Contact Prime Contractors

"If such a machine shop expert can be found, the next move is to contact local holders of prime armament contracts to determine what parts are being or will be subcontracted (a list of these prime contractors can be secured through this Branch). Selling these contractors is a real job, tougher than selling printing, but those who have done it find that

Peter J. Dennerlein, Manufacturing Director of Crowell-Collier Publishing Company, will be Co-Chairman of the clinic on Production Management and Engineering at the Craftsmen's International Convention to be held in Grand Rapids, Mich., August 9, 10, 11, and 12.
Mr. Dennerlein's broad experience makes him especially well fitted to conduct this clinic. Prior to joining the Crowell - Collier organization five years ago, he was assistant General Manager of the McCall Corporation for thirteen years. Before that he was with Collier's Weekly *in New York, N. Y.*

sufficient perseverance brings results. A simple subcontract should be selected, and a list made of the tools necessary to do the required work. The chances are that if the work is of a light nature the tools are available. New machine tools are unobtainable but the Machine Tool Branch of WPB has on file more than 15,000 used machine tools purchasable without priority assistance. A ceiling price has been placed on these tools.

"The Small Business Act should greatly assist in this effort; it offers financial assistance and brings subcontracting pressure to bear on prime contract holders. The bill sets up a federal agency empowered to certify the proficiency of the subcontractor and to act as the prime contractor itself if necessary. This agency can be of very real help to the small business man in getting into war production. Granting that the printer now has his tools and the promise of a subcontract, the next job is to train his men.

"Journeymen printers can quickly learn simple machining operations; their background is excellent for this, but experts are required to train them. The printer may be able to hire a nucleus of machinists; perhaps he has men with such training in his own Monotype department or pressroom. With a very few skilled men others can be trained rapidly and, this completed, the plant is then ready to do business.

"That is the conversion picture for printing plants at present and it is not what many printers have in mind when they speak of conversion.

"It is a rough, difficult road—but so is war rough and difficult. The work is there to be done and American ingenuity undoubtedly will develop better plans and better methods of approach. They can't be developed in Washington alone. Resourcefulness must also be supplied by printers themselves."

NEW AND USED PRESSES *of modern design*

in demand in response to urging of trades organizations that "decks be cleared" to enable printers to weather economic storm — Reduced printing volume will go to plants having most efficiently equipped pressrooms

CONTRASTING developments in the printing industry among progressive printers, have been the demand for new or almost new printing equipment offering the efficiencies of modern design, while obsolete printing equipment (now obviously outclassed in production) is unwanted.

One printing equipment manufacturer, whose production before the war was devoted solely to automatic high-speed letterpress equipment, has noticed that new and latest style presses are in as great and perhaps greater demand than ever before. It would appear that those printing concerns producing the volume of work required by the present war program and by certain active industries, are not only willing to buy modern presses but are willing to purchase used equipment of modern design at prices equaling or even exceeding those of preceding peace years. On the other hand, within the few months that this company has endeavored to stimulate a release of vitally needed scrap metal for armament by offering an inducement to owners of obsolete printing equipment, it has been estimated that the tonnage of old printing equipment which has been scrapped almost equals that of the entire year 1941.

An interesting sidelight of this trend as reported to *Printing Equipment Engineer* by this manufacturer is that the company has now extended its inducement to include any obsolete printing equipment. This was stimulated by receopt of requests received to scrap rotaries, web and sheet fed presses of all processes, glueing, bronzing, platemaking and cutting and creasing machinery in addition to other kinds of equipment. Already, much of this useless machinery has been scrapped for its vitally needed metals.

It seems that the tendency to scrap old-style equipment now is proceeding with the same intensity of purpose which marked the abandonment of large, slow, bulky equipment some years ago in favor of fast, automatic high-speed presses with quicker get-away. Printing trades organizations are urging the "clearing of decks" to weather the economic storm brought about by the decreasing amount of sales promotion and general printing.

It is also reasoned that the reduced printing volume will go largely to plants having most efficiently equipped pressrooms and that this concentration of printing unfortunately will leave even greater gaps of idleness noticeable in those plants which were just able to get by even in favorable times. Labor shortages caused by the departure of skilled operators to military and defense ranks will deplete pressroom production still further and make the acquirement of modern equipment and the removal of useless and non-competitive equipment more pronounced.

The thought still remains, however, that old and inefficient equipment is not earning its keep today, while most modern equipment is more likely to be kept busy to a greater extent mainly because of its versatility and ability to produce certain kinds of work quickly and at low cost. With the elimination of inefficient equipment, heartless price competition is reduced and this printing volume is returned to pressrooms better equipped to produce it.

Typographic Questions Invited

ONE of the highlights of each annual convention of the International Association of Printing House Craftsmen is the Typographic Clinic. At the coming convention in Grand Rapids, Mich., on August 9 to 12, the Typographic Clinic will be in the hands of Howard N. King, typographic consultant of Intertype Corporation, and typographic director of the Maple Press Company, York, Pa. and Glenn Pagett, president of the Indianapolis Club and typographer with Typographic Service Company, Indianapolis, Ind.

The Clinic will devote its entire time to discussing important questions pertaining to type faces, layout, art, composing room management, and other factors in the design of printing.

A booklet will be printed and distributed at the convention, which will contain a list of the questions sent in before the Clinic, with blank space under each question so the proper answer can be written in.

Messrs. King and Pagett are desirous of having layout men, typographers, designers, agency men, or anyone else, submit questions for discussion at this Clinic, whether or not they are members of a Craftsmen's Club. To all persons sending in questions the committee plans to send a printed copy of the booklet with the answers determined upon at the Clinic. Please mail all questions now to Howard N. King at 7 South Keesoy Street, York, Pa.

Postcard Releases Metal

By ALFRED M. MAY*

*The Alfred M. May Company, Direct Mail and Commercial Printers, Cincinnati, O.

DURING the past several months, our company, in common with other printers throughout the United States, has become conservation minded. We have considered ways and means for making our plant more self-sustaining in view of our present national situation. The accompanying miniature reproduction of a standing form card is self-explanatory and represents one means we have adopted to help along the war program. Why it was created and what results were obtained make up a very interesting story.

For a good many years the abuse of standing forms in many composing rooms on the part of the customer was costly enough, but the "hope" of the printer that he would get repeat orders just caused these forms to clutter up the composing room—in many cases without the knowledge of the customer.

It has been the policy of the trade composition houses to either have the metal returned or have the customer pay for it if the composition bill were to be discounted. But this privilege was abused by many a printer because he was a good customer and he knew the trade composition house would not force the issue.

We have always used a form 8½ in. by 11 in. size which we call a Standing Form Record, on which we have kept religiously records of our standing forms, how often they were used, etc. It was surprising when going through this record of a number of jobs that were standing for several years just how much they were costing us.

Right after the bombing of Pearl Harbor it began to dawn upon us that although the metal was paid for it was not right that the trade composition house should go out and buy additional metal when the industry would feel the shortage.

Between Christmas and New Year's, 1941-1942, we made a test by sending out a number of cards like that shown in the accompanying illustration. It was surprising to note, not only how many cards came back with definite instructions, but how fast they came back.

It was also pleasing, although entirely unexpected, the number of orders for printing from the standing forms came through. Some of these we had not run for several years—and sad to relate, in the meantime, the printing had been done by our competitors.

Our present system for using these cards is this. The card goes out with the invoice for every job, no matter how small, even on a three-line envelope corner card.

The card also goes out with forms that have been standing from year to year and from which we have been printing regularly. Not a day goes by that at least one standing form is called to the attention of a customer, and of course more on the days when we have the time to send out the cards.

In addition, a number of accounts that have been inactive for some time have been revived to a small extent by means of this card.

It is difficult to determine at this time just how much of this dead metal has been returned to us. We are confident, however, that if the same ratio is maintained as occurred between the time we started the use of the card the first of the year until May 1, it will not be the fault of our customers nor will it be because of neglect or oversight on our part if we have one dead form standing in our plant in the future.

There is much ammunition around a lot of printing plants that can be released to help win this war. So far as our own plant is concerned, Uncle Sam is going to get it from us.

Removes to Weatherly, Pa.

The Linotype Parts Company, manufacturers of "Star" parts for line-composing machines, has acquired its own property in Weatherly, Pa. Machinery is now operating in the modern factory building, and the main shipping department has been transferred from New York, N. Y.

An office and stockroom at 203 Lafayette Street, New York, N. Y., will be maintained. Distributing points at Kansas City, Mo., Chicago, Ill., Minneapolis, Minn., and Denver, Colo., will function as heretofore.

One of the few speakers at the International Convention of Craftsmen to be held in Grand Rapids, Mich., August 9, 10, 11 and 12, is Thos. R. Jones, President of American Type Founders. He will discuss "New Horizons for Printing."

WON'T YOU PLEASE HELP US TO HELP "U. S."?

It has been our policy to keep forms standing whenever there was a possibility of a re-run, to avoid the expense to our customers, of re-setting.

We will continue to do so "during the emergency", but ask that you keep this down to a minimum by checking this card. No postage required.

☐ **HOLD this form. We plan on re-ordering on or about** .....

☐ **HOLD this form. We are not sure about re-ordering so get in touch with us on or about** .....

☐ **KILL this form. We will not re-order.**

Form No. ....
Authorized by

Date ....
Firm Name

Facsimile reproduction of postcard employed by Alfred M. May Co., Cincinnati printers, to encourage customers to release type metal which otherwise would be kept in useless storage unless repeat orders are anticipated.

Executive Meeting Dates

American Photo-Engravers Association—Louis Flader, Commissioner, A-1446, 166 W. Van Buren St., Chicago, Ill.

A.N.P.A. Mechanical Conference—June 8, 9, 10, 1942—Hotel Drake, Chicago. W. E. Wines, Manager, A.N.P.A. Mechanical Dept., 370 Lexington Ave., New York, New York.

Illinois Newspaper Mechanical Conference—Ed Nagel, Secretary Champaign (Ill.) *News-Gazette*.

International Association of Electrotypers & Stereotypers, Inc.—A. P. Schloegel, Field Secy.-Treas., 949 Leader Bldg., Cleveland, O.

International Association of Printing House Craftsmen—August 9-12, 1942, Grand Rapids, Mich. Herbert Threlfall, International Secretary, 210 Lowell Ave., Providence, R. I.

International Trade Composition Association—Wm. E. Lickfield, Secretary, 629 Chestnut St., Philadelphia, Pa.

Iowa Daily Newspaper Mechanical Conference—May 24, 25, 26, 1942, Hotel Fort Des Moines, Des Moines, Iowa. Paul Kamler, Secretary, Clinton (Ia.) *Herald*.

Iowa Line-casting Machinists Conference—May 24, 25, 26, 1942, Hotel Fort Des Moines in conjunction with Iowa Daily Newspaper Mechanical Conference. Carl Bloomburg, Chairman, c/o *Register* and *Tribune*, Des Moines, Ia.

National Association of Photo-Lithographers—Walter E. Soderstrom, Executive Secretary, 1776 Broadway, New York, N. Y.

New England Newspaper Mechanical Conference—Second week-end, October 1942—Hotel Statler, Boston. Walter C. Crighton, Secretary, New London (Conn.) *Day*.

Northwest Newspaper Mechanical Conference—1943 meeting to be announced. V. G. Eck, Secretary-Treasurer, Dunwoody Institute, Minneapolis, Minn.

New York State Newspaper Mechanical Research Conference—February meeting postponed indefinitely. Byron G. Culver, General Chairman, c/o Rochester Athenaeum and Mechanics Institute, Rochester, N. Y.

Pacific-Southwest Mechanical Conference—April, 1943, Los Angeles, California. Fred J. Moyer, Secretary, c/o Los Angeles *Daily News*.

S.N.P.A. Eastern Div. Mechanical Conference—August-September meeting postponed indefinitely. Walter C. Johnson, Secy.-Mgr., P. O. Box 1569, Chattanooga, Tenn.

S.N.P.A. Western Div. Mechanical Conference—February, 1942 meeting postponed indefinitely. C. W. Tabb, Secretary, 723 Texas Bank Bldg., Dallas, Tex.

United Typothetae of America—July 6-8—French Lick Springs, Ind.—Otis H. Johnson, President, 719 Fifteenth St., N. W., Washington, D. C.

NEW HOME *of Shelby (N. C.)* Star *specially built for newspaper and commercial printing — Modern building equipment and facilities*

By STAFF WRITER

AMONG the comparatively new newspaper publishing and printing plants is that of the Shelby (N.C.) *Daily Star* which was originally established as *The Cleveland Star* in 1896. *The Daily Star* has been in existence since approximately four years ago when Editor Lee B. Weathers changed the publication from a tri-weekly to the present daily afternoon paper. In addition to printing and publishing a daily newspaper, the Star Publishing Company is engaged in producing a considerable volume of commercial printing. Shelby's population exceeds 10,000 people.

The new building covers ground area 50 ft. by 85 ft. and is situated on a corner lot 130 ft. deep. The rear part of the lot is used for employee parking purposes.

The building itself is two stories high and with the basement, three floors are utilized for business and editorial offices and the mechanical departments. The basement up to the first floor is of solid concrete and reinforced steel construction of substantial fabrication so as to support the considerable weight required by printing equipment.

The two building wall elevations exposed to the street are faced with cream brick with tile glaze. The other two exposed elevations are of double red brick. The roof is of built-up asphalt composition with heavy underneath insulation.

Floor Arrangement

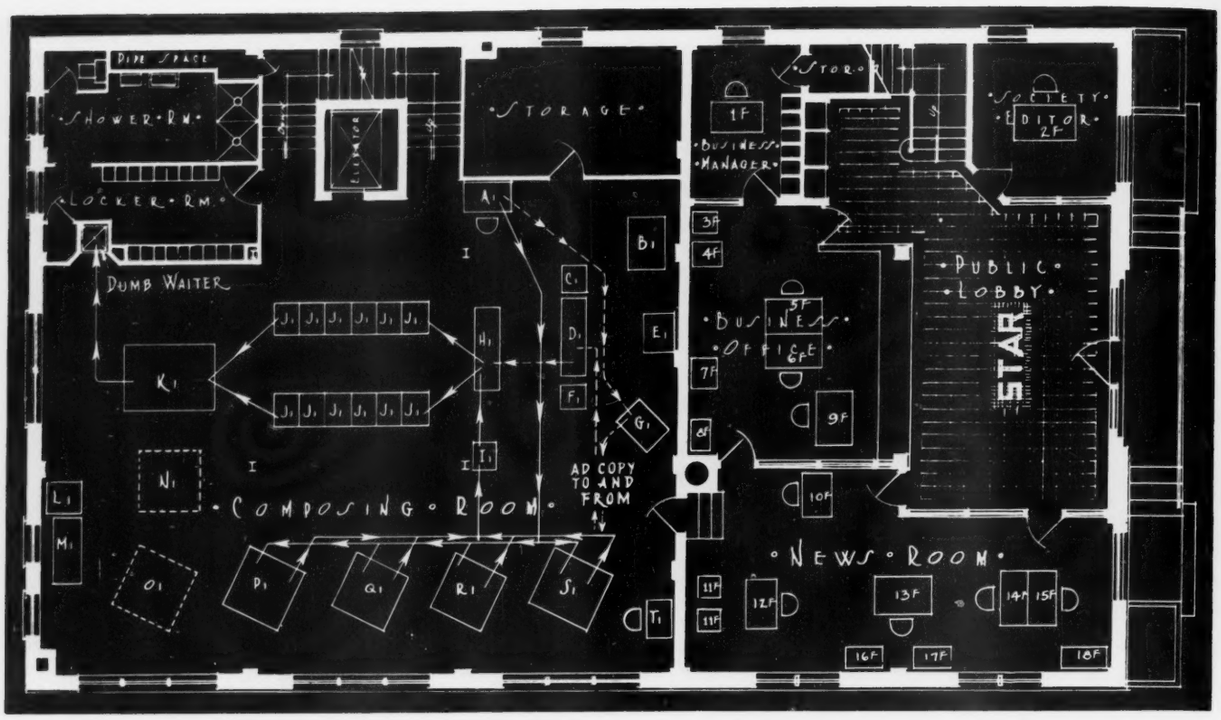
In the basement will be found the stereotype foundry, the pressroom, mailing room, storage room, carrier boys' room, boiler room and coal bin with 45 T. storage capacity. The paper storage space will accommodate three carloads of newsprint besides crated paper used in the commercial printing department.

When entering the building from the main entrance, the visitor finds himself in the main lobby. Facing the front is a long counter. Back of the counter are located the business, bookkeeping and circulation departments. To the left of the lobby is the editorial news department separated from the lobby by head-high panel partitions. To the right of the lobby is the stairway and the office of the society editor. The major portion of the first floor is devoted to the newspaper composing room, stereotype matrix roller and to locker, toilet and shower facilities.

At the head of the stairs leading off from the main lobby to the second floor is the entrance to the job department. Two-thirds of the second floor is used by the commercial printing department

Lee B. Weathers, Editor and Publisher of the Shelby (N.C.) Daily Star. *With the opening of the new building,* The Star *organization celebrated the thirtieth anniversary of Mr. Weathers' association with the paper. Mr. Weathers is a past president of the North Carolina Press Association and has always been connected with civic activities.*

New combination newspaper and commercial printing plant of the Shelby (N.C.) Daily Star. *The building is 85 ft. by 100 ft. and is situated on a lot 130 ft. deep. The front and side elevations are faced with cream-colored brick with tile glaze. The building was erected especially for the* Star *and is substantially constructed with structural steel and concrete to support the heavy weight of printing equipment. The architectural firm of Breeze & Rivers, Shelby, N. C., designed the building.*



First Floor Diagram and Equipment Layout for Shelby (N.C.) *Daily Star's* New Building.

Newspaper Composing Room

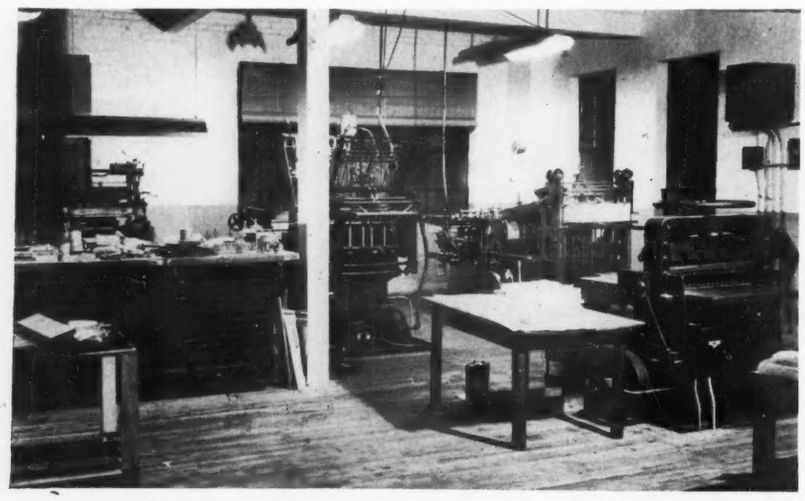
A1 — *Foreman's Desk*
B1 — *Table*
C1 — *Saw*
D1 — *Makeup Stone*
E1 — *Ludlow Cabinet*
F1 — *Saw*
G1 — *Ludlow*
H1 — *Proof Press and Ad Dump*
I1 — *Galley Dump*
J1 — *Makeup Trucks*
K1 — *Mat Roller*
L1 — *Strip Storage*
M1 — *Strip Caster Elrod*
N1 — *Future Linotype*
O1 — *Future Linotype*
P1 — *Linotype*
Q1 — *Linotype*
R1 — *Linotype*
S1 — *Linotype*
T1 — *Proof Reader's Desk*

Office Equipment

1F — *Business Manager*
2F — *Social Editor's Desk*
3F — *Water Cooler*
4F — *Safe*
5F — *Business Manager's Desk*
6F — *Bookkeeper's Desk*
7F — *Table*
8F — *File*
9F — *Circulation Manager*
10F — *Telephone Operator and Information*
11F — *Associated Press Machines*
12F — *Associated Press Desk*
13F — *Reporter's Desk*
14F — *City Editor's Desk*
15F — *Managing Editor's Desk*
16F — *Picture File*
17F — *Cut File*
18F — *Morgue File*

with which is incorporated a storage room and a printing paper stock room.

At the front portion of the second floor is the advertising department's room. Immediately adjacent is an assembly room opening upon the balcony at the front of the building. This is used as an office library and conference room, which seats approx. 30 people for small public gatherings. Next to the assembly room is the editor's office and secretary's room. Two rest rooms and storage closets open into the hall.



Here is shown a section of the commercial printing department in second floor of new building, The Daily Star, *Shelby, N. C. Natural daylight is admitted by double-hung steel sash with fluorescent lighting fixtures for artificial illumination. In the corner may be seen a Miller Simplex press. At the left of the Simplex is an ATF Kelly press. A Chandler & Price and a Kluge complete the press equipment. At extreme right is shown a Challenge Diamond Power Paper Cutter.*

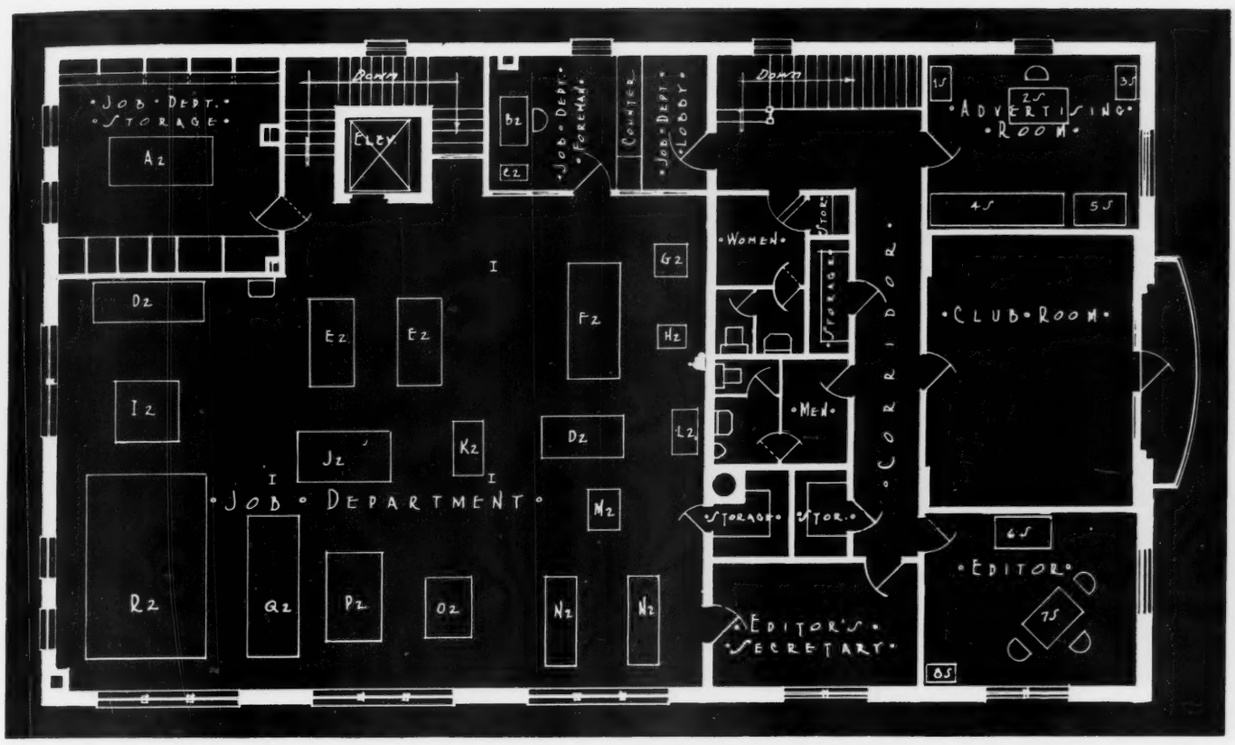
Mechanical Departments

The mechanical departments are in charge of Superintendent Harris (Buck) Hardin who has been identified with the plant for 25 years.

All of the mechanical departments are illuminated with plenty of natural daylight. For night operation or for dark days, fluorescent lighting is employed. Floors are of hardwood. Walls are painted white for high reflection value.

The *Star* plant furnishes its own heat through coal-fired boiler in the basement. Rest rooms, shower and locker facilities are provided for employees.

As will be seen by referring to the equipment layout, four Linotype machines are used regularly for straight-matter and display composition. A Ludlow is used for display purposes. An



Second Floor Diagram and Equipment Layout for Shelby (N.C.) *Daily Star's* New Building.

Commercial Printing Department

A2 — *Table and Cabinet*
B2 — *Job Dep't Foreman's Desk*
C2 — *File*
D2 — *Work Table*
E2 — *Work Table (Movable)*
F2 — *Folder*
G2 — *Power Drill*
H2 — *Stitcher*
I2 — *Paper Cutter*
J2 — *Makeup Cabinet*
L2 — *Perforator*
M2 — *Saw*
N2 — *Type Cabinet*
O2 — *Chandler & Price Press*
P2 — *Kluge Press*
Q2 — *Kelly B Press*
R2 — *Miller Press*

Office Equipment

1S — *File*
2S — *Advertising Manager*
3S — *File*
4S — *Ad Mat File*
5S — *Ad Drafting Table*
6S — *Table*
7S — *Editor's Desk*
8S — *File*

Elrod strip and rule caster keeps the department supplied with plenty of material. When the page forms for the newspaper have been made up they are delivered to a Goss matrix roller for molding. The molding machine is in the newspaper composing room. After each mat has been molded it is sent down to the stereotype foundry in the basement level.

The Pressroom

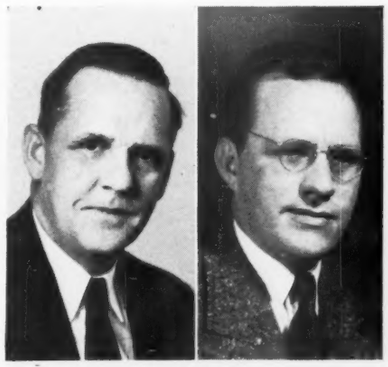
The Star is printed on a Goss three-deck press and usually is operated at a printing speed of 18,000 copies per hour. Although special automatic controls for the heating system keep the temperature at proper working temperature, a heating coil is located in a pit underneath the press, through which is blown heated air to warm the ink distributing mechanism and to cause the ink to flow freely and evenly.

It is estimated that *The Star* uses 150 T. of newsprint per year for its six-day editions. Two tons of ink are used annually.

The stereotype foundry is located at one end of the press in the basement.

Commercial Department

The Commercial Printing department is supervised by Foreman Richard Reviere. Reference to the equipment layout diagram will show that in this department on the second floor, general commercial work is produced. In addition to the press equipment itemized underneath the diagram, an automatic folding machine, upon which 72 different kinds of folds can be made, is used.



Left: Mechanical Superintendent Harris (Buck) Hardin. He has been connected with the plant for 25 years.

Right: Here is Richard Reviere, foreman of The Star's *commercial printing department on the second floor.*

The machine can also be used to perforate and strip-gum pamphlets and the like printed matter.

In the storage room is kept job stock, while the newspaper storage room in the basement is used for case lots. Some 20 T. of job printing papers, cardboard, envelopes, shipping tags, cards, wedding stocks and the like are kept on hand at all times.

Rubber Stamp Substitutes

Because crude rubber is now prohibited by the government for the manufacture of hand stamps, The B. F. Goodrich Company announces a new line of compounds made from Ameripol, the synthetic rubber developed in its own laboratories, and also compounds from reclaim rubber. They can be used in making hand-daters, logotypes and toy stamping sets.

Both compounds are black and vulcanize at 307 degrees Fahrenheit. The Ameripol compound has a Durometer reading of 55, specific gravity of 1.22 and a 10 min. cure, while the reclaim compound has a Durometer of 60, specific gravity of 1.27 and 7 min. cure.

WAR MAINTENANCE *of Printing Press Drives*

By E. C. VROOMAN*

*Industrial Department, General Electric Co., Schenectady, N. Y.

EVEN before Pearl Harbor, most of the printing press manufacturers and the electrical manufacturers had been using much of their factory facilities to manufacture defense materials. Now that we are in the war, the United Nations are using 100% of most of these factories and are controlling the entire supply of defense metals used by all factories.

This condition makes it almost impossible for the press manufacturer and the printer to secure new equipment. The "show must go on" and the printer will do all he can to carry his share of the war effort with his present equipment. There are a number of ways in which cooperation between the printer and the manufacturers of his equipment can help him to do this.

The very first thing that the printer should do is to inspect his presses and their drives, and make notes of their condition. Cards similar to that illustrated in Fig. 1 are useful for the drives, and the sales engineer will be glad to help make this inspection and fill out the cards.

Along with the cards, the printer should have an instruction book and, in most cases, a wiring diagram applying to each piece of electrical apparatus in his plant. These will come in handy when it is necessary to repair or replace parts of the equipment. The company who manufactured the apparatus will be glad to supply these. All that is required is the manufacturer's nameplate data and the approximate date of purchase.

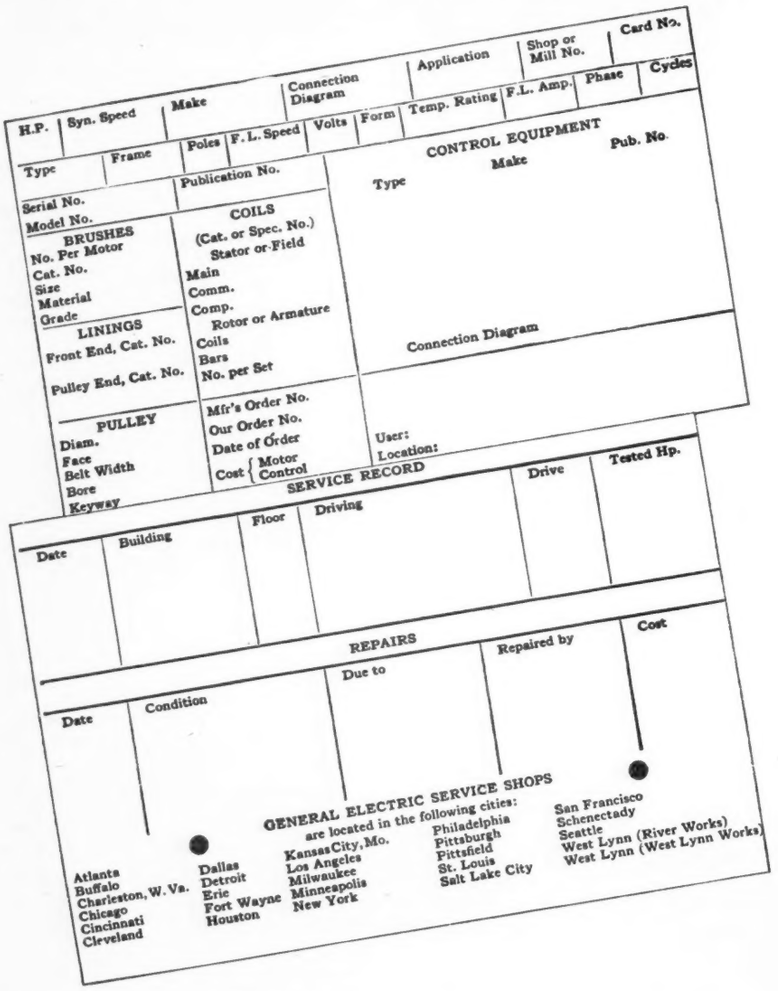


Fig. 1 — Miniature reproduction of data card for keeping record of service and maintenance of each motor in the printing plant. Front and rear views. The original size of this card is 3⅝ in. high by 5½ in. wide.

The sales engineer, and the specialists who back him up and, if necessary, the manufacturer's service organization, can prescribe a maintenance procedure including the replacing of parts that will put the electrical equipment back in the best possible condition. The printer should not expect to have equipment as good as new since only complete factory-built machines made of new materials can qualify, but the useful life can be prolonged and lost time due to failure of the drive minimized.

While the manufacturer's organization is best qualified to advise and actually correct faults or repair breakdowns, there are many precautions that the printing plant can take care of:

(1) Keep the motors and control clean; they will operate as designed, and last longer.
(2) Clean and true up electrical contact surfaces. The contact tips, buttons, and brushes usually can be changed about so as to equalize the effects of arcing.
(3) Lubrication of all moving parts will prolong the life of parts that may be expensive and difficult to secure.
(4) Periodic checks of motor loads, operating voltages, and other conditions which affect the apparatus (dirty or moist air and chemical fumes) will often disclose changes which should be made to prolong the life and/or increase the efficiency of the drives.
(5) Check, list, and keep clean stock of spare parts.

In following the above suggested precautions, the printing plant service man will familiarize himself with the circuits and operation of the motors and controllers. Most manufacturers have maintenance manuals available for the asking.

A final word of advice may be unnecessary, but "the war will last until we win it" and the more materials we send to the war the less we will have to work with here at home, so be kind to your machines, treat them gently, and they will repay you by lasting until new ones are available.

SPECIAL EDITIONS

Diamond Jubilee Edition

ON Wednesday, April 22, the Paris (Tenn.) *Post-Intelligencer* published a Diamond Jubilee Edition (really, 76th year of existence). The issue consisted of six sections, 66 pages. A 16 page tabloid rotogravure section was included. Considerable editorial space was devoted to articles and illustrations descriptive of Camp Tyson, the only United States barrage balloon camp. Civic activities and business enterprises of the city of Paris were described.

Letterpress Step-Repeat

—How the Art Photo Engraving Company of Newark, N. J., handles this type of work for making Multiple Image Plates

By ADAM HENRI REISER

(PART II)

THE first installment of this two-part article introduced the step-repeat method, and led up to the specific work done in that field by the Art Photo Engraving Company of Newark, N. J., with some explanation of the equipment and methods employed. In this Part II a further description of machine and methods will begin. We then will leave the matter in your hands with the promise to answer any questions that may arise in your minds.

To produce multiple images, the Company headed by President Ernest Sanger, makes use of a camera especially built to specifications. Many innovations are found in the camera-back even as in the darkroom itself. For illustration, inspection of Fig. 4 will reveal a light box directly over the camera-back. This furnishes a better light source for the operator. To the right of the camera and just to the left of the electric clock on the wall is a window covered with a dark red glass. A window at the right and another at the left of the camera-back provide the operator with a means of observation and control over the outside factors. It will be seen from the photograph that slides are provided to exclude all outside light when that may be found necessary, as might be the case in panchromatic work. Both these items may seem insignificant at first glance, but only the experienced can envision the help these small items provide the "man behind the gun".

Camera Helps In Step-Repeat Work

So it is with numerous other instances in the Art Photo Engraving Company camera. There is the adoption of the screen rotation principle to position the negative or positive unit where angular setting or inter-weaving is necessary in stepping up (see Fig. 3). Means are provided to adjust the photographic glass in the positive box, permitting rotation about any of its axes.

The straight-line reverser has been added to the equipment, removing the need for the right angle board at first installed. Fig. 1 shows the straight-line reverser in place on the lens. While an opalescent glass is used at present behind the subject being stepped up, and in front of the arc lights, it is believed that future installations of a more advanced lighting will remove the need for this translucent glass.

An absolute focusing device on the side of the camera, based on the Fruwirth system, removes the element of deviation or difference that may be introduced through chain slippage or backlash in the main screw. Shutter control is possible from the outside or inside of the darkroom. Arc lights are fastened to the camera by means of bars along which the lamps may move. Utmost flexibility is possible in lighting through the attachments on the lamps which permit movement in any direction to obtain a more efficient lighting on any type of subject brought into the gallery. The copyboard lies in a horizontal position while the positive box is being used to step up a transparency.

The commodious darkroom (Fig. 4) is typical of the well-kept, clean establishment. The camera-back shows the halftone screen in position. To remove this, the back is swung out, running on the overhead track. A masking frame carrying the curtains or other masks that may be necessary for the particular step-repeat job may be substituted for the screen while the back is swung out. Question naturally arises on the screening possibility while the mask is in position. Of course screen distance cannot be obtained while the masking unit is in place. For that reason, but also to secure uniformity in each step, screening is always carried out on the original, thus insuring that each unit of the stepped up job is exactly alike.

Due to the unique construction of the back, maximum throw is possible on the 28 in. by 30 in. glass plate. Thus shooting can be accomplished right out to all four corners of the glass. However, to insure perfect images, jobs usually are routed to permit an inch of margin all around the glass. Wet-plate work makes this desirable. The full limits of a step-repeat job handled at the Art Photo Engraving Company is thus 26 in. by 28 in. In Fig. 4 are shown rulers at the top and right side of the camera back with an enlarging glass and light for each ruler. Pointers under the enlarging glass determine the reading at which each subject is shot in its correct position. Vertical movement is effected by means of the motor seen below the camera-back, horizontal movement is hand manipulated.

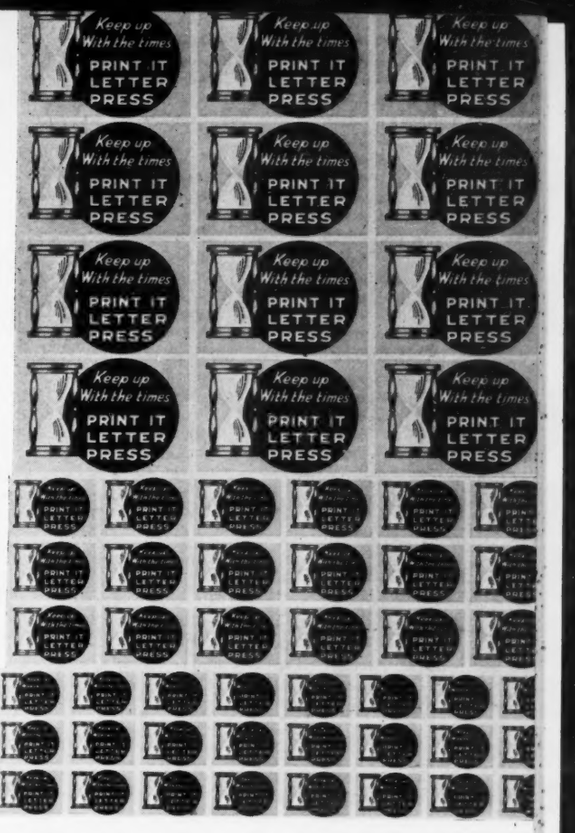


Fig. 7.—This full press sheet was run from the final stepped up letterpress plate in four colors. Size of final sheet as shown is 9½ in. wide by 13¾ in. Printed on gummed stock, die-cut all around and perforated ready for use.

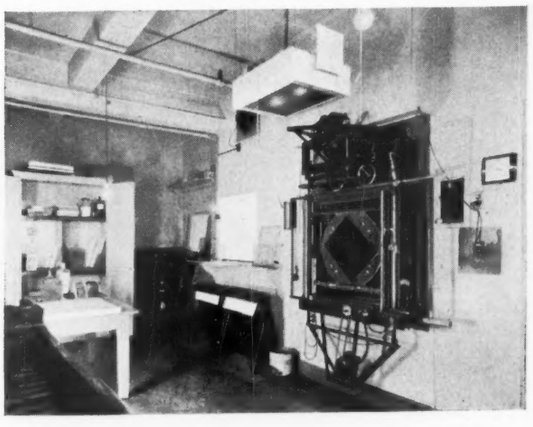


Fig. 4.—Here is shown a section of the Art Photo Engraving Company's commodious dark room. Note the camera back with overhead track, rulers behind the small lights, the screen rotating device, the motor for glass movement, overhead camera movement wheels, overhead light box, and other familiar equipment.

Work Planning Necessary

So much for the mechanical devices necessary to this plant for their chosen step-repeat field. As to the actual meth-

Fig. 5.—Here is shown the line cut made from the original design and from which the Art Photo Engraving Company produced the step-repeat stamp plate in three colors and black shown in Fig. 7.

ods of production, they vary with the job. It is safe to say that no two jobs can be treated exactly alike with maximum efficiency. Some will need one, some three, some more intermediate steps before the final negative is reached. Where two or three different sized subjects are combined on the same plate as was the case with the stamps in Fig. 7, added steps of sizing and lining up on each original must take place before shooting begins. This means removing the wet-plate from the back during each lining and sizing-up operation, then replacing it in exactly the same position as at the outset of the job. Steps must always be so planned to arrive at the required final and most economical result in the shortest fashion. If a negative is to be the final product the step before it must be either a positive copy or positive glass. This is stressed because the reversal is taken advantage of in planning. This reversal from positive to negative, or vice versa, is rarely effected chemically. The lateral reversal may be taken care of either by the straight-line reverser or by stripping.

A natural question to the wet-plate operator concerns drying and exposure time. What has been the experience with the drying of the plate during these periods of apparently prolonged shooting? The answer lies in planning. Work is planned to group as many images as efficiently possible in the preliminary steps to keep the shooting time on each glass within limits found feasible.

Specific Step-Repeat Procedure

For specific procedure, let's have a look at the promotional letterpress piece gotten out by the Art Photo Engraving Company. Fig. 5 shows the first line cut that was made. From this plates were made with the four colors separated (Fig. 6). These were proved, and a negative made of each color. From these negatives, multiples were shot; six horizontal shots being used for the large subject on one glass; two vertical rows of three each of the medium size on another glass; and two vertical rows of three each of the smaller ones on another glass. This provided positives of each color of each size, each in turn being then placed in the positive box and used to produce the final negative of each color, the three sizes being shot complete to one glass. Here, then, is furnished a typical visualization of the savings involved in this manner of producing press plates for letterpress printing. Compact, with no waste at all, Fig. 7 shows the sheet run from the final plate. With the latter being in one piece, ease of obtaining register, makeready, color, and all of the other manipulations can be seen readily. Education and selling is necessary, opines Mr. Sanger, to make the printer conscious of this advantage at his doorstep.

That's one way of handling a job. When the work becomes more complicated, other approaches are pursued. For illustration, an all-over design like a pantograph tint having its beginning in two or three words, offers a higher degree of planning. Especially is this so when interlocking or the echelon formation is used, with a series of lines, wavy or otherwise, dividing the lines of words. It requires a mathematical mind to lay out the work, obtain the readings, and otherwise plan the steps to the best advantage. Tolerance is close; three, four or any multi-color work retaining a better register than has hitherto been possible in letterpress. There can be little question of this, for the step-repeat process has ably illustrated it for years in offset-lith.

One Other Method Useful For Small Jobs

Up to this point, mention has been made of the following means of obtaining multiple images: early photo-composing machines of lithography, in the form of a

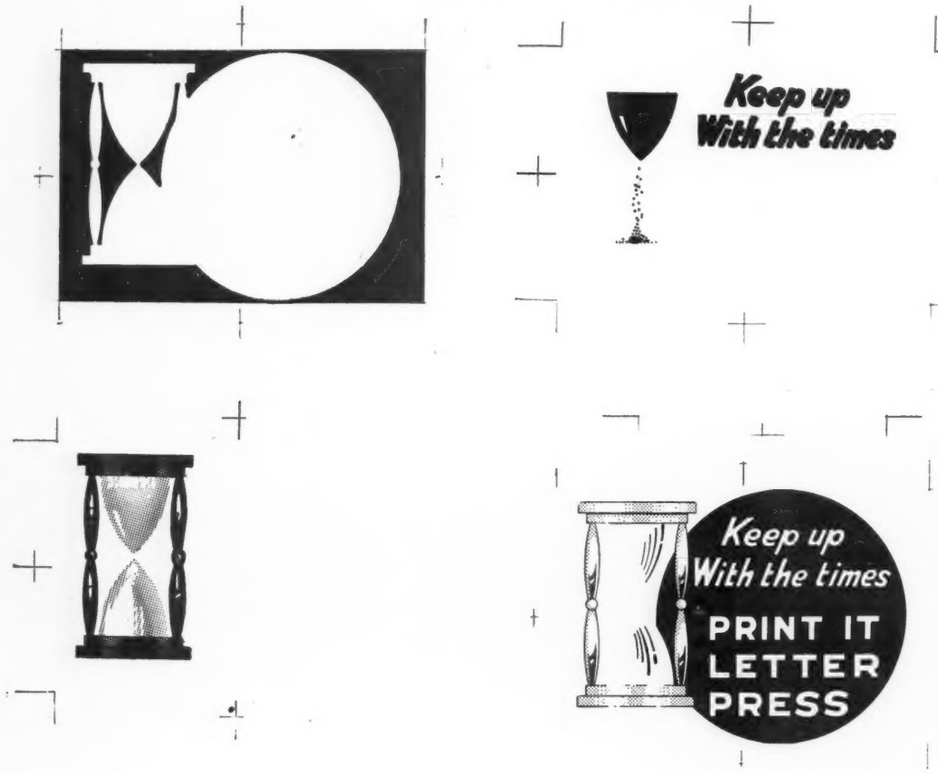


Fig. 6.—Miniature reproductions with register marks of the purple, yellow, tan and black separation proofs, respectively, made up from the original line cut shown in Fig. 5. Negatives from these four proofs were used in producing the three sizes of stamps shown in the completed form in Fig. 7.

vacuum printing frame with various attachments to obtain the desired end; actual photo-composing machines built in two sizes, one small for photographic plates, film, or even small plates; and a larger machine designed primarily for the production of press plates but also applied to the production of images on photographic material. Mention has also been made of the step-repeat back on cameras.

Modern equipment provides means for obtaining registration to three decimal places (0.001 in.). Multi-color work requiring absolute register, or work including the precision margining found in offset-lith tin work cut on a die stamping machine demands the mechanically perfect machines mentioned. However, there is another method provided by Ellis Bassist for closely registering work not requiring multiple images.

Why photo-engraving has failed to avail itself of this means to provide combination work on one plate form is a question that often has occurred to the writer. The method in point embodies some of photo-engraving's own developments. Surely stripping film to an image on glass and printing it to copper should offer no greater difficulty for the photo-engraver than it does to the offset-lithographer. Of course, the latter uses film (not wet-plate or strip-film) but dry film to the glass, and then shoots it to the zinc or aluminum plate. Why shouldn't that operate on copper as well?

Whether hidebound tradition of the photo-engraving industry stands in the way, in the form of opposition from either the top or bottom, is not clear. Opinions have been offered that accuse the practical men as well as management in their alleged obstruction of progress. But however it may be, Messrs. Sanger and Beisler have succeeded in breaking through, and as a consequence are reaping the benefits of their progressive ideas.

(The End)

Modern Viewpoint *in commercial printing plant management expressed freely at Carnegie Institute of Technology's 1942 Alumni Reunion and Banquet—A printing estimate can be judged only in terms of the production efficiency of a given plant*

IT was remarked by an outside observer who is neither a member of Pittsburgh's Carnegie Institute of Technology printing alumni group nor an operator in the printing field that there is a distinct contrast between the bickering, depressed and fearful attitude which he had observed at meetings of printing managers, and the vital, analytical, and the desire-to-do-something-about-it attitude displayed by those taking part in the various discussions at the recent Alumni Reunion.

The 1942 Reunion of the Department of Printing was held at the Institute on April 17 and 18. Approximately 150 persons participated in the various sessions.

The observer referred to in the opening paragraph of this report also raised the question as to whether owners and managers in the printing industry were taking full advantage of the fresh viewpoint displayed by the ever increasing number of younger men with a background of engineering and management training.

Accounting and Production Standards

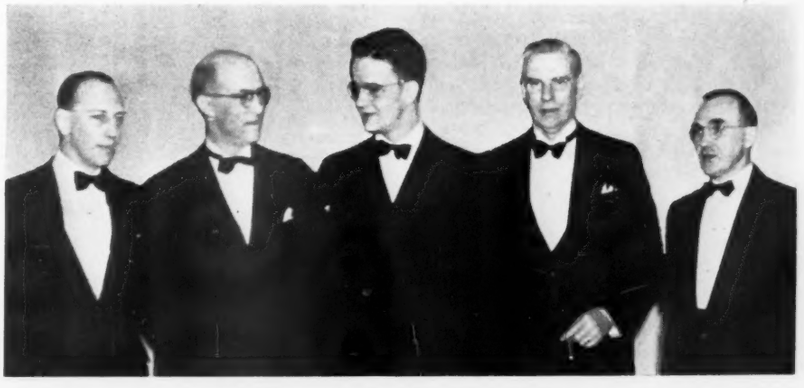
Management Control Accounting and Production Standards Procedures was the topic of the opening technical session on Saturday morning. Carnegie printing graduate, H. Brooks Ely, who has been assisting the United Typothetae of America in developing a system of control accounting, led the discussion. Stating that profit is the underlying motive for existence of any business, Mr. Ely related his discussion of management control accounting to the profit motive. He pointed out that most accounting systems fail to provide a basis for profit control inasmuch as they show past history. Management control accounting is developed on the assumption that it is not only important to know "where we have been" but equally important to know "where we are going." Management control accounting seeks to determine whether a profit is being made and if not, why it is not being made.

Medium and Large Printers' Future

The discussion of control accounting and standards procedures led logically into the discussion of the second topic considered at the technical sessions, namely *The Future of the Medium and Large Printer*. Discussion on this topic was led by Thomas P. Butler, vice president and treasurer of the Pittsburgh printing firm, Herbick and Held. The topic theme which Mr. Butler presented was a direct challenge to the printing industry. In part, he said: "Printing in this country appears to have kept pace with industry in general up to the beginning of the present century. At that time the businessman, especially big business, began to learn the value of specialization and standardization. Most printers did not participate in that specialization and standardization period of expansion. Today many printing plants are equipped and operated identically as they were ten, twenty, and thirty years ago. . . . It is a sad truth that due to insufficient education the printer has likewise failed to educate his public. The outstanding deficiency in the education of printers appears to me, in my brief experience, to be in business practice. Modern business practice and modern accounting methods are synonymous—where you find one you find the other. It seems to me that printers have been unwilling to pay the price to provide brain power in that field as other businesses did years ago. . . . Most printers have never learned the lesson that success is not dependent on large profits but is safely built on moderate continuous profits."

Meeting Changing Conditions

Round-table discussion on *Meeting Changing Conditions in the Graphic Arts in a War Economy* was participated in by many of the visiting alumni. It was generally agreed that difficult days are ahead for the printing industry, but it was likewise emphasized that the extremely depressed point of view found among certain representatives of the Graphic Arts industry was not justified.



Some of those at speakers' table, Alumni Reunion, Carnegie Institute of Technology Department of Printing banquet, held April 18. Reading from left to right they are: Robert H. Caffee, Carnegie Printing Alumni Association President; MacD. Sinclair, Editor, Printing Equipment Engineer; *O. B. Wood, Student Toastmaster; John A. Backus, Educational Director, American Type Founders; Glen U. Cleeton, Head, Department of Printing.*

Ways and means of adapting printing production to existing social and business needs were discussed at some length. It was generally agreed that the fundamental problem was one of determining the needs for printing under conditions now existing and likely to develop in the near future. Many reported that form printing and straight black-and-white work are on the increase and that the greatest reduction in volume had occurred in color-process work.

Printer's Greatest Weakness

No meeting relating to the Graphic Arts industry would be complete without a discussion of the printer's greatest weakness, namely his inability to properly price the product which he is trying to sell. Comments at the Carnegie Alumni Reunion meetings this year were extremely caustic on this point. Some of the members who had witnessed the opening of bids on public printing were convinced that one of three things accounted for some of the pricing differences, which ran as high as 400%. The three specific causes for the differences suggested were: (1) that many printers did not know what it actually costs to produce a job; (2) there are distinct differences in the cost of production in different plants; or (3) some printers are magicians.

Off-the-record comments by Craig R. Spicher, educational director of the Miehle Printing Press and Manufacturing Company (who was presswork instructor at Carnegie from 1915-1920), would lead one to believe that the printing industry will undergo marked changes during the present emergency and will, as a consequence, be a distinctly different industry in the period after the close of the war. Much debate on that topic occurred informally outside the scheduled meetings. It was generally agreed that whether Mr. Spicher's prediction was correct or not, there was considerable evidence to indicate that drastic reorganization in the printing industry was long overdue.

One contributor suggested that progress would be made only through a complete break with traditions in the printing industry, insofar as sales, management, and production methods are concerned.

An observer indicated that managers in the printing industry during the past twenty years had been operating on the production and management side with extreme conservatism, while at the same time selling their product on a highly speculative basis. As a result of such practices many printing firms have, in his opinion, conserved out-moded machinery which has become dead assets, while live assets have been given away to customers through unjustifiable selling practices. Commenting on these observations Mr. Butler stated that although it is evident we are now in a sellers' market, many printers are still "sharpening pencils" on estimates as though printing was still operating in a buyers' market. However, he qualified his statement in that connection by saying it is not always the operator with the low estimate that loses money, and an estimate can be judged only in terms of the production efficiency of a given plant.

The Banquet

The reunion closed with the annual banquet. John A. Backus, educational director, American Type Founders, presented an illustrated lecture on *Evolution of a Civilization Through the Evolution of a Craft*. MacD. Sinclair, editor, *Printing Equipment Engineer*, gave an address entitled *Prospecting in Printing*. Mr. Sinclair emphasized the need for realism in evaluating current conditions, and called upon the representatives of the industry to accept present circumstances as a challenge for service to the nation in the emergency period. O. B. Wood, of the 1942 graduating class of the Department of Printing, served as toastmaster, and David Ellis, another member of the 1942 graduating class, entertained with feats of magic.

Hoe Celebrates with Victory Rally

The concrete floor of the newly constructed machine shop was still wet in New York, N. Y. It had been poured only two days before when 1500 Hoe employees crowded into it on Saturday, April 11, for the Hoe Victory Rally which was held to celebrate the completion of the company's second large ordnance contract for the United States Army many months ahead of schedule.

The Hoe management decided that some formal means should be adopted to tell the employees of the splendid results of their work and to congratulate them on their effort. This was done by officials of the Company and high ranking army officers who utilize the type of armament built by Hoe. They delivered brief addresses to the employees, distinguished guests and members of the Board of Directors. Music for the occasion was provided by the Fort Totten Band. General Sales Manager Arthur Dressel acted as master of ceremonies and following the raising of both national and ordnance colors, he introduced Col. J. K. Clement, Deputy Chief of the New York Ordnance District, who described for the Hoe people the military importance of the production soldier who helps to build war equipment in the Hoe plant.

He was followed by Col. Rodney H. Smith, Chief of Staff of the Anti-Aircraft Artillery Command, Eastern Defense Command. He told the audience of the part that would be played by the 90 mm Anti-Aircraft Gun in winning the war.

A glimpse of the future and the events to follow a return to normal peacetime conditions was provided by Walter M. Dear, President of the A.N.P.A. and publisher of the *Jersey Journal*. He spoke about "Hoe's Place in the Newspapers of Tomorrow."

The next speaker was President Harry M. Tillinghast who showed the employees the contributions which Hoe is now making and will continue to make in the effort to win the war.

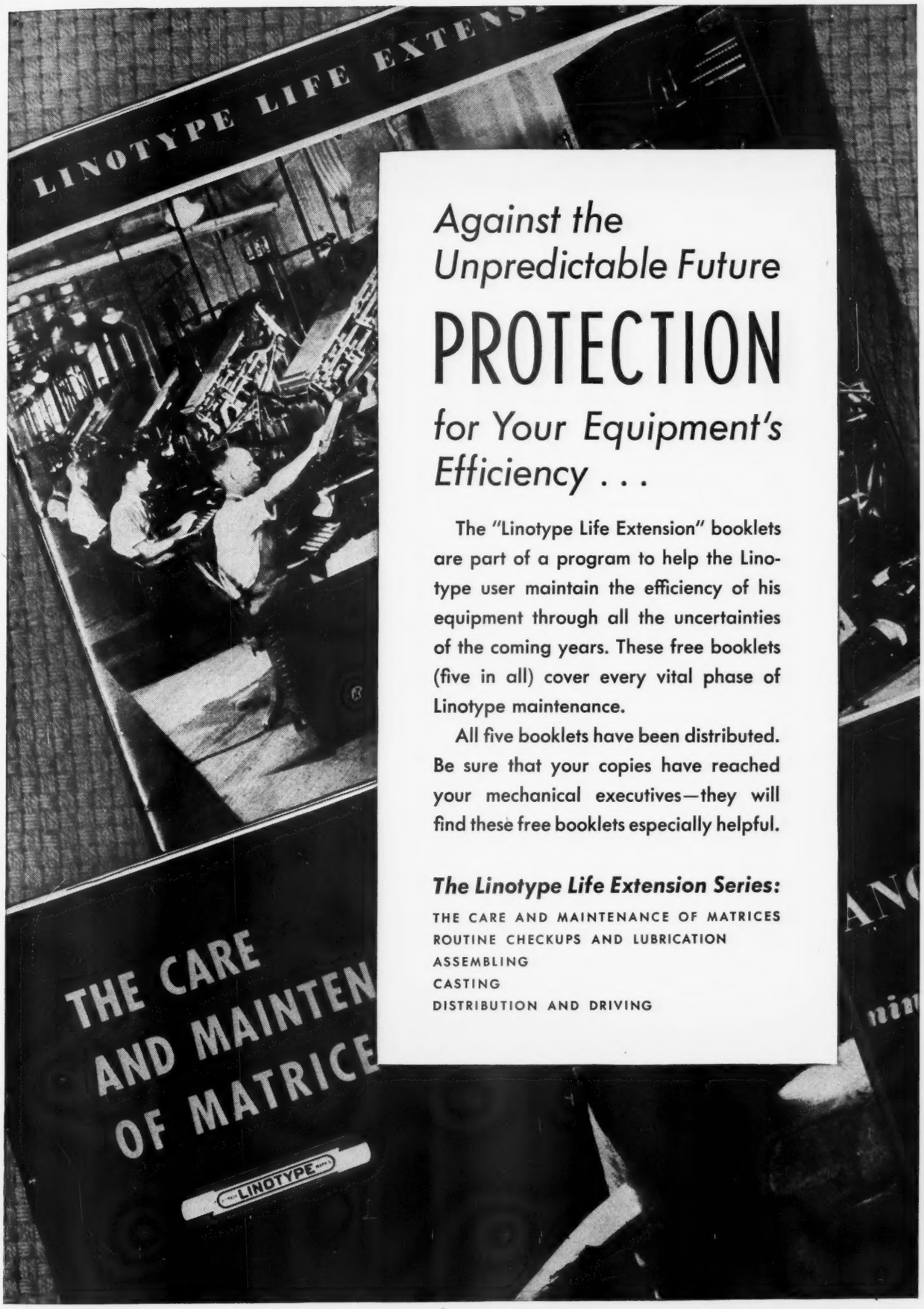
General Works Manager J. L. Auer, who directed the work in the plant to its successful conclusion speaking in the name of all the Hoe employees voiced "Our Promise" for the duration.

Following a demonstration of the 90 mm Anti-Aircraft Gun, by a gun crew from the 62nd Coast Artillery, the celebration was adjourned to a luncheon which was provided on the premises of the new building. After luncheon the employees went back to work to continue their production of more armament for the army.

Vice President Arthur Dressel of R. Hoe & Co. welcomes Col. J. K. Clement, Deputy Chief of the New York Ordnance District to the Hoe Victory Rally while Walter M. Dear, President of the ANPA and Publisher of the Jersey Journal, *Jersey City, N. J., looks on. Approximately 1500 employees of R. Hoe & Co. attended the rally.*

Old Wedges for War Work

Montgomery & Co., Towanda, Pa., state that discarded line-composing machine long wedges are needed and can be used in machine shops doing war work. Any make or thickness spaceband can be used so long as the wedge is unbroken. U. S. Arsenals and other munitions manufacturers have been buying the discarded wedges in lots as high as 500 at a time. The exact purpose for which the wedges are used is not stated. An allowance of 5c per wedge is offered.



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Newly-elected Officers for Pacific-Southwest Newspaper Mechanical Conference

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Vice President—Rex Light, Asst. Supt., Los Angeles Herald-Express.

Secretary-Treasurer—Fred J. Moyer, Chief Machinist, Los Angeles Daily News.

Pacific Southwest Newspaper Mechanical Conference Meets

By STAFF WRITER

CONSERVATION of equipment and supplies was the main topic of discussion at the seventh annual meeting of the Pacific Southwest Newspaper Mechanical Conference held in Los Angeles, Calif., April 11 and 12. Although the registration was only about 200, many late arrivals came to the Saturday night session to hear Leon A. Link who was recently appointed newspaper production specialist of the Printing and Publishing Branch, War Production Board.

At the afternoon session, President Chas. H. Ruhmland, Superintendent of the Glendale (Calif.) *News-Press*, introduced President M. F. Small, of the California Newspaper Publishers Association, who was the first speaker. He maintained that newspapers of the country would have a struggle to get through the war period but "They will get through because their job is to maintain the spirit that will justify the heritage of the spirit of Valley Forge." In his opinion the freedom of the press was first and foremost and the fires of freedom would never burn out as long as they are fed with printing ink. He also stressed the part newspapers play in war.

John B. Long, general manager of the California Newspaper Publishers Association, was next introduced and spoke on "The Saga of the Free Press Under Censorship." He brought to the attention of those present that the problems of the publishers have increased tremendously and that the mechanical departments make up the bone and sinews of all publications. These departments are more important now than before the war. He claimed that censorship would never jeopardize the press since the press is controlled only by the American public. This is a war of the standards of living and it is only through advertising that we have such a high standard. He praised many of the national advertisers who, although their plants are now in war work, still advertise in the newspapers. They are the salvation of the press.

After Mr. Long's address the Mergenthaler Linotype company presented a sound picture "Type Character", illustrating the making of type characters and matrices.

The group discussions were well attended and much interest was shown.

The Saturday evening meeting was preceded by a dinner at which there were seated 150 delegates. President Ruhmland introduced Alden C. Waite, editor of the Glendale *News-Press*, who spoke on "Coordination: from Copy to Printed Product."

Chairmen of the various roundtable discussions were as follows: Composing Room Group—Jerry Bolman of the Los Angeles *Shopping News;* Stereotypers—Ralph Prickett of the Los Angeles *Commercial News-Press;* Pressmen—Joe Brown of the Hollywood (Calif.) *Citizen-News;* Engravers—Leslie Bennett of the Los Angeles Mission Engravers; Machinists—Herbert Young of the Pasadena (Calif.) *Star-News*.

The main speaker of the conference was Leon Link[1], who is now on leave as production manager of the Cleveland *Plain Dealer* as newspaper production specialist for the Printing and Publishing Branch of the War Production Board. He said this is a mechanical war and therefore the conservation of all materials and machinery is essential. In this conflict equipment is more important than ever before. Newspapers must get along on what they have for the duration.

Continuing, Mr. Link said that the surplus space and equipment of many of the larger plants might even be used to manufacture small parts for war needs. Pressrooms are expected to save oil, paper, ink, rubber—especially oil. Saving paper is very important as pulp is used for ammunition. Color inks contain chemical ingredients used in war supplies and should be conserved Save rubber press rollers—do not expose them to dirt and heat. The rubber shortage is no myth. Saw blades and router bits

[1] See April issue of *Printing Equipment Engineer* for report on Mr. Link's address given at the Los Angeles conference.

Attending the April meeting of the Pacific-Southwest Mechanical Conference of Newspaper Executives, from left to right are: Ernest Gee, Foreman, and Louis Richardson, Production Manager, both of the Los Angeles Herald-Express; *Principal Newspaper Production Specialist Leon A. Link, Printing and Publishing Branch, War Production Board; Production Manager K. L. Gregg, San Diego (Calif.)* Union-Tribune; *Chas. H. Ruhmland, Production Manager, Glendale (Calif.)* News-Press; *Superintendent L. L. McFall, San Bernardino (Calif.)* Sun-Telegram.

Technical Suggestions

for photo-engraving industry respecting materials and chemicals substitutions—Study the subject irrespective of your own predilections

By STAFF WRITER

GRADUAL application of orders by WPB covering essential materials required for war production and the depletion of stocks of imported supplies affect photo-engravers and newspaper engraving departments more than any other branch of the Graphic Arts. Up to the present time, the printing industry has been curtailed relatively little while other civilian businesses have been forced to cut, and in some instances, completely stop production for normal peacetime needs. The printing industry as a whole is recognized as a morale unit and the dissemination of news and pictures probably will be permitted to continue functioning with little restraint. For this reason it is important for engravers and engraving departments to not only conserve but also voluntarily to institute changes in method and materials.

On both wet plate and film photography the materials used are about equal in importance to the war effort. No real decision can be made on this basis and the only real saving in favor of film is one of time and manpower. New camera equipment is now practically unobtainable, so for the duration these departments will remain about the same.

As practically all the chemicals used in film developer are both expensive and scarce, it is advisable to use care in mixing and use. If prepared chemicals are used in package form, the portion containing the hydroxide should be dissolved the day before the second portion is added. Or, the solution can be thoroughly cooled prior to the addition of the second portion. This eliminates oxidation caused by warm hydroxide. If the chemicals are separately mixed, the same procedure should be followed.

It is not economical to use only a small amount of developer in the tray. Shallow solutions oxidize much more rapidly. If only a small amount of work is to be handled it is much more economical to use a smaller tray or even a long narrow tray, just wide enough for the normal size of film used. Larger films can then be pulled through the tray similar to the method used when developing film rolls.

Declining Use of Copper

The use of copper, under war pressure, is declining. Some excellent work, however, is now turned out on zinc and zinc alloys. As should be apparent to all photo-engraving executives, restrictions have been placed on the use of copper. In fact, this material may be sharply curtailed in the near future. Brass, largely used for syndicate work, can be replaced with heavier gauge zinc alloys and complete conversion, if not voluntary, may be mandatory in the near future.

EDITOR'S NOTE—*Some materials, such as film, film development chemicals, ammonium dichromate, zinc, etc., are absolutely essential for photo-engraving and should be conserved wherever possible by photo-engravers, who should bear in mind that these supplies are required for war production. Wherever possible, other items should be replaced with non-essentials to show voluntary industry cooperation and prevent the necessity for complete governmental restriction.*

No Satisfactory Zinc Substitute

It is hoped that zinc, though not plentiful, will be unrestricted in this industry as no satisfactory substitute has ever been devised. This material was first used for photo-engraving until copper came into use for finer grades of work. New and improved methods of zinc formulation and finishing, plus the introduction of hard alloy zincs have made this material more satisfactory than ever for high-speed economical production on all except the finest types of black-and-white and color work. It is well to point out that for twenty-five years practically all of this work has been handled on zinc and zinc alloys throughout the European continent.

Syndicate and Long-Run Mat Work

A satisfactory method of handling syndicate and long-run mat work is to etch the material on 14 gauge zinc alloys, etching to the necessary depth without routing. In this way the strength of the base metal is preserved as it is difficult to rout to an even depth. In this connection it can also be mentioned that routing usually is done at extreme and unnecessary depths. An excellent method for obtaining this depth is to roll up the etching with Halftone Acid Resist after powdering for the last bite. This protects the top completely and prevents powder chipping, so prevalent on final bites where extra depth is required.

Shellac Conservation

The importation of dragons blood has been curtailed but synthetic substitutes have been on the market for some time and more are in prospect. Shellac use has been curtailed to 35% although this has not affected photo-engraving as yet, as most enamel manufacturers and shops cooking their own enamel have enough material on hand for six months to a year or more. It does not appear possible to import more of this item for some time to come and for this reason it is advisable that plants conserve on this item as much as possible. Numerous engraving plants are now using "Ink Tops" for some of their work. In this way, printers and etchers are again becoming used to the method. A sharp curtailment of the use of both shellac and alcohol is possible.

Both fresh and dried egg albumen has been the usual material for the sensitive coating on ink tops. Glue can be used but it is not as satisfactory. As large quantities of dried egg and dried milk (from which casein is derived) is now being shipped to all parts of the world, this can be replaced by new materials made from by-products.

Tint-Print Substitutes

Tint-Print solutions contain either benzol, toluol, carbon tetrachloride or ethylene dichloride — all of which are required in war industry. For this reason, many engraving plants are using the ink roll-up method. Instead of flowing the tint-print solution on the plate, a thin roll with No. 1 etching-ben day ink is spread on the plate, then dusted with magnesia and the plate is then washed out under water followed with a very weak ammonia or lye solution to remove all grease. This method is satisfactory and completely foolproof.

Special opaques can be used in place of gamboge, if desired.

Nitric Acid Alternatives

Some satisfactory etchings have been made without nitric acid but this method is impractical at the moment, due to the fact that the equipment required is unobtainable. Citric acid is used frequently to promote clean etching but this does not prolong the life of the acid solution. A dead bath can be cleared up for one more plate by the addition of a handful of potassium alum, but after using this once it must be drained. All good etching machines have an enclosed fan which provides sufficient ventilation if the piping is installed properly. Extreme suction on the bath will weaken the acid strength quickly and should be avoided.

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The photographer snapped these registrants during the Pacific-Southwest Mechanical Conference of Newspaper Executives, Los Angeles, Calif. Left to right, they are: Representative Jack Hesse of Certified Dry Mat Corporation; Engraving Foreman Frank Weiler and Superintendent Art Stanley of the Los Angele- Daily News; *Publisher Chass M. Rodgers of the Hunting. ton Park (Calif.)* Bulletin.

contain much needed metals and should be properly resharpened and cared for. Brass composing machine matrices should be handled with care—repair and recondition them wherever possible. Engravers are cautioned to conserve zinc and chemical supplies. Lead, tin, antimony are very important, therefore watch the temperature of the remelting pots so that none of the ingredients will go up the chimney.

Keep all of the junk moving—old electrotypes, plates, zinc, brass, scrap metal, etc. It is not doing any good in the junk pile. Save man power by eliminating the resetting of advertisements. Be careful with all machinery—eliminate all breakage if possible. Whenever you ask for electrical equipment you are asking for equipment needed in war—you might not get it. Electrical equipment is especially important in the construction of tanks.

You might not be able to buy new equipment—therefore take care of what you have. The supply situation is not likely to ease up. In experiments for substitutes to date there has been nothing encouraging. Iron has been used instead of nickel for plate surfacing and has been found very satisfactory and in some instances five times better.

The most serious problem now is the preservation of the nation. We are not only trying to save the boss but to save the working and economic conditions we now enjoy.

Mr. Link's talk was followed by a general discussion during which Ira Stuck, Superintendent of the San Francisco *Shopping News*, suggested a reduction to a reasonable number of the ad-proofs sent to advertisers.

Sunday morning's session was started with a breakfast at 10 o'clock and the meeting continued in a general discussion on priorities and supplies.

Arizona was represented by Pressroom Superintendent H. D. Reeves of the Phoenix *Republic* and *Gazette*. From the San Francisco district came Superintendent Ira Stuck and Pressroom Foreman James Garrett of the San Francisco *Shopping News;* W. P. Carlisle, Superintendent of the Palo Alto *Times*, and Harry Parsons, Superintendent of the Sacramento *Union*.

The delegates voted to invite executives of the northern part of California to meet with them at the next conference. This was done with a view of making it a conference of all California as well as Arizona and New Mexico.

The new officers elected were Superintendent Earl C. Leavitt, of the Culver City *Star-News*, President; Assistant Superintendent Rex Light of the Los Angeles *Herald-Express*, as Vice President, and Machinist Fred J. Moyer, Los Angeles *Daily News*, was re-elected Secretary.

The next meeting will be held in Los Angeles, California, in April, 1943.

The Printing Metals Situation

MANUFACTURERS of metals for the printing industry are governed closely by regulatory WPB orders. As a result, a real problem is presented: First, in getting sufficient raw metals, and second in an equitable distribution of finished metals at the time they are needed by units of the printing industry. It is the manufacturer who really has a problem, for he is trying to solve the problem of demand of his various customers as all metals needed by them are critical war materials.

Aluminum: Under mandatory control.

Antimony: WPB control is tightening gradually, but still no shortage.

Copper: Copper for the printing industry is more difficult to get from Government. In preparation for new brass mills more copper and zinc are needed. Some of these mills will come into operation this summer. WPB may ask the printing industry for further cooperation in some new form or another.

Lead: Situation is fairly comfortable as production increases.

Nickel: Canada still is the only source, but other sources may furnish metal late in the year to bring relief.

Tin: Type metal manufacturers may only use secondary or scrap tin, which is no hardship. The new Texas smelter now is in partial production with a brand known as "Longhorn."

Zinc: Expected to be under full allocation June first. New brass mills will make new demands on this metal, hence, expect WPB regulation of this material soon.

Nonferrous Metals—Smelter Quotations—May 1, 1942

(100 lb. Lots)

	Mar. 28	*May 1*
Aluminum (94%) minimum, del.	$13.50	$13.50
Antimony (Am., 224 to 9999 lb., N. Y. + $2.14 per case of 224 lb. freight Laredo, Tex.)	15.25	15.25
*Copper (Electrolytic, Conn. Valley, deld.)	12.00	12.00
Lead (E. St. Louis pig)	6.35	6.35
Nickel (99.9% electrolytic cathodes) f.o.b. refinery	35.00	35.00
*Tin (Straits, spot)	52.00	52.00
*Zinc (prime West., spot, E. St. Louis)	8.25	8.25

*Trading suspended

These quotations furnished by *Daily Metal Trade*, Cleveland.

Summer Printing Courses

The Department of Printing at Carnegie Institute of Technology will offer a wide variety of summer courses in printing for a six-weeks period from June 26 to August 8. The printing and publishing branches of the graphic arts face the possibility of drastic changes in the present national emergency.

The Department of Printing at the Carnegie Institute of Technology is offering a series of carefully planned, intensive courses for a six-weeks period from June 26 to August 8. Courses offered will include plant and production management, estimating, printing production, photolithography, elementary and advanced layout and design, elementary and advanced typography, elementary and advanced presswork, linotype and intertype operation, linotype composition, and composing machine mechanism.

School Closes Temporarily

The Southwest School of Printing, Inc., Dallas, Texas, will take a recess from April 18 to January 1, 1943, because of the national emergency which is making it impossible to maintain full enrollment in its classes, according to announcement made by E. W. Jackson, Austin, president of the School. "More than 110 persons graduated during the past three years are holding positions satisfactorily," stated President Jackson. "The board of directors will continue in office and our executive secretary, Alfonso Johnson, will remain in charge of the School. On January 1, we hope to reopen classes with an enlarged course of study."

OUR BOSS *until he* WINS THE WAR

— but he will let us help you with used plate-making equipment which we have in stock. Reconditioned, these Junior and Pony Autoplates and Autoshavers, and Vacuum Equipment for any Autoplate will meet your urgent requirements until new machinery is available. Please write to us for details.

WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY **NEW YORK OFFICE: 501 FIFTH AVENUE**

WOOD NEWSPAPER MACHINERY

Wood Steel Press • Full-Speed Autopasters • Pony, Junior and Automatic Autoplates • Vacuum Casting Equipment (applicable to any Autoplate, old or new) • Standard and Heavy-Duty Autoshavers • Color Plate Pre-Registering Device

Paper Ink Containers Successful

"I'll have vanilla."

That's what pressmen will probably remark when reaching for an ice-cream container instead of a metal ink can in the future. At least, there's that possibility, now that the War Production

Board has restricted the use of tin cans for packing inks. This order became effective at midnight, April 30.

One ink maker, the E. J. Kelly Company of Kalamazoo, Michigan, has been making test shipments of inks in special paper containers for several months. This firm reports that of the many styles of cans used in their experiments, the most successful is the one shown in the accompanying illustration. It was developed especially for packing printing inks and, in general appearance, resembles the conventional ice cream container.

The search for a tin can alternate will be continued by the Kelly Company. According to comments given this ink maker by those who are receiving test shipments of the new type container, it is satisfactory as a tin can substitute.

Further comment indicates that several Kelly inks, toners and varnishes were packed in the new type container for test purposes. These were placed on a shelf in the company's color matching department. The cans were handled twice a week during the two-month test period in the same manner as a pressman would handle ink cans and ink was removed from the cans from time to time. Up to the present time there is no evidence that the ink has softened the sides or bottoms of the containers. Test shipments to East and West coasts have been made in the paper containers during the past three months. As yet no reports have been received stating that any of the paper cans have been damaged in transit.

Alltone Progress Described by Its Inventor—Printing from Original Plates by Rotary Press —Writer Suggests Uses in Present Emergency

By ALBERT L. LENGEL*

*Production Manager, Oakland (Calif.) *Tribune*.

SINCE Alltone methods of using engraved plates were first introduced in June 1938 at the Toronto (Canada) A.N.P.A. Convention, considerable progress has been made with them. The trademarks "Alltone" are twice U.S. registered. There are several foreign patents allowed, including Canada, 14 claims on plate mounting rigs and two U.S. patents entitled: Printing Plate No. 2248275, and Method of Preparing Printing Plates No. 2261554.

All patent offices concerned have fully recognized the new technique and terms of Planagraphic Letterpress by their allowances, which is the ultimate in Alltone objectives. Twenty-five regular Alltone licenses have made their second and third-year renewals affecting approximately 50 newspapers.

Before the advent of Alltone many attempts were made to retrieve the values of original engravings on curved newspaper plate presses which were lost when flat-bed presses were abandoned. These efforts resulted in many varied pactices. Some employed thin metal flexed to the plate arc, others forcibly bent rigid plates, adhesives of different kinds were used and anchors cast enbloc. None of these practices from 1895 to 1938 provided the important essential of uniformity necessary for universal adaptations, particularly in view of diversified newspaper plant equipment operation and the characteristics of national copy sources of different classifications. In recent years, newspapers also realized that competing mediums were benefited to a greater extent than they in photo-mechanical and other printing advancements.

Consideration was given all these factors, and many others in seeking a satisfactory solution to the general problem of acquiring the values of original engravings for direct use on all newspaper presses and providing a means of utilizing to greater extent photo-mechanical and photo-composition innovations as they become commercially adaptable. This research led to the invention of Planagraphic Letterpress principles by establishing a practical transition medium with which newspapers could change from complete letterpress to eventual planagraphic methods in easy and economic advancements. The perfection of these principles became known as Alltone.

Obviously, if the values to the industry of process uniformity and plant routine were to be established universally, then the simplest forms of engraved plate uses should first be fully understood and practiced. From this point on, many local variations may be desirable at times, but all will have the benefits of a common knowledge, uniform practices, and similar cost items, in the event certain of these variations temporarily became nationally desirable.

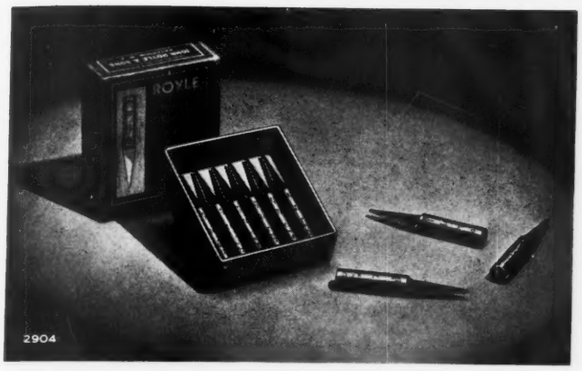
Albert L. Lengel, inventor of Alltone method of printing direct from original engravings, tells about improvements in process since introduction in 1938.

This all-embracing method of engraving adaptation facilitates printing progress inexpensively and causes the least disturbance to plant equipment and personnel. Present executives and artisans have the opportunity of keeping abreast of improvements while avoiding some of the disturbing factors usually encountered with progressive efforts.

Alltone in its simplest form suggests that thin metal full-page plates be used and mounted on precision ground steel dummy supports by perfected Alltone mounting rigs. The thin metal makes for economy, fast and safe mounting and permits the use of inexpensive interlay plate makeready. Full-page size plates permit mass production handling, and the steel dummies properly mounted provide accuracy and long service. Such plates may be of any subject matter choice and are adaptable to any printing bed or cylinder.

Newspaper plants having Alltone plant routine may use the Alltone plate-mounting rig for the mounting of thick or thin metal "cuts" to plates or bases. Except with rigid metal engravings, a plate bender of some sort is additional equipment. Control over plate register for hair-line or color purposes is afforded

(*Continued on Page 36*)



ROUTING CUTTERS THAT CUT!!

Choose Style According to Use

Styles	*Blade Sections*	*Recommended for*
A		Electrotypes, stereotypes, wood
B		Zinc
C		Brass
D		Electrotypes and copper
E		Copper (Steel at reduced speed)
F		Zinc (Reinforced blade)
G		Brass (Reinforced blade)
H		Copper (Ground below center)
L		Zinc (Long blade)
M		Wood veining (No taper)

All Royle Routing Cutters reflect advantages gained through more than eighty years' experience in making these tools. We promise no miracles, but offer a complete line of cutters in every respect the finest that sound design, fine material and expert workmanship can produce. ***Order Direct Or Through Your Dealer . . . Be Sure It's a Royle.***

Write for catalogue 425

ROUTERS · TRIMMERS
BEVELERS · SAWS

JOHN ROYLE & SONS

8 ESSEX STREET PATERSON, N. J.

LET'S TRADE

AND WE'LL BOTH PROFIT

YOU undoubtedly have some obsolete printing metals around your plant — and we, on the other hand, have new type metals. Let's trade! By so doing, we'll both profit — you will be converting idle metal into active, usable type metal — we will be getting metals for reworking without the necessity of taking needed metals from our war effort.

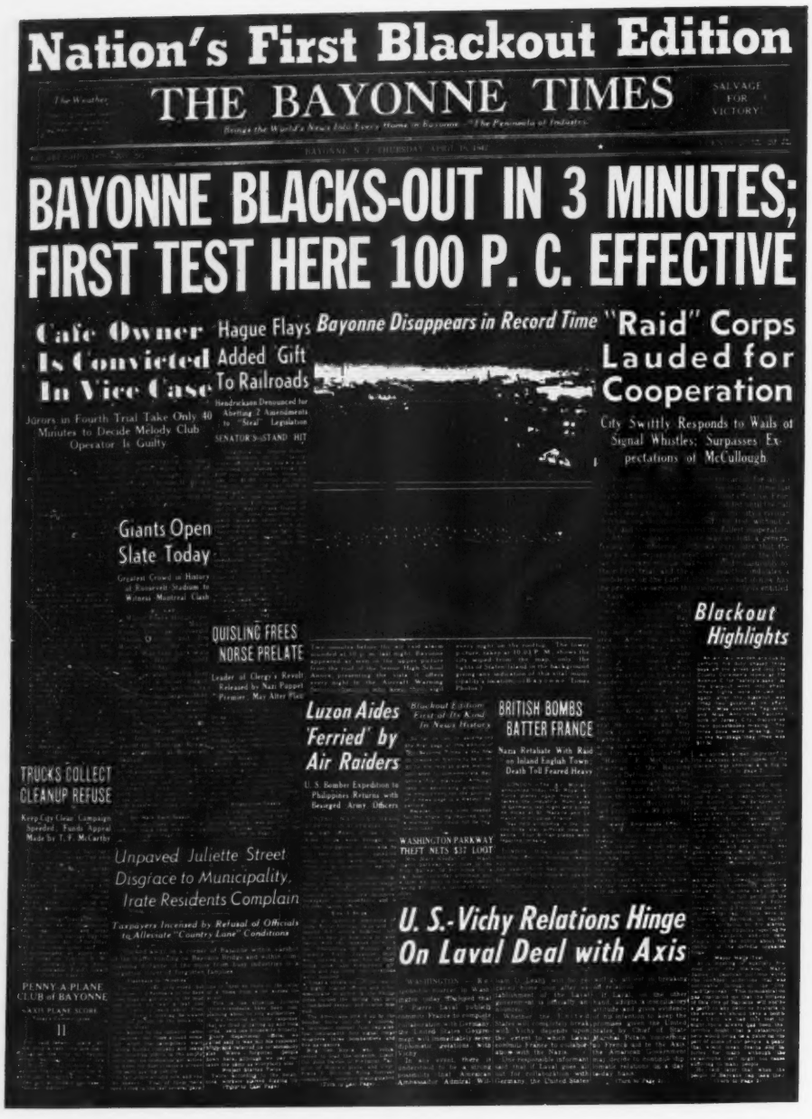
When you send your old metal and scrap to Imperial for new metal, you are dealing with a reliable firm that has specialized in type metals for 30 years. Imperial printing metals and Imperial-pioneered services such as plus metals, metal analysis, dross drums, etc., are used in leading newspaper and commercial plants from coast to coast. Start today collecting your scrap and obsolete metal. Trade it to Imperial for new metal.

Serving the Printing Industry Only

IMPERIAL TYPE METAL CO.

PHILADELPHIA NEW YORK CHICAGO

Imperial



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Jurors in Fourth Trial Take Only 40 Minutes to Decide Melody Club Operator Is Guilty

Hague Flays Added Gift To Railroads

Hendrickson Denounced for Abetting 2 Amendments to "Steal" Legislation

SENATOR'S STAND HIT

Bayonne Disappears in Record Time

"Raid" Corps Lauded for Cooperation

City Swiftly Responds to Wails of Signal Whistles; Surpasses Expectations of McCullough

Giants Open Slate Today

Greatest Crowd in History at Roosevelt Stadium to Witness Montreal Clash

QUISLING FREES NORSE PRELATE

Leader of Clergy's Revolt Released by Nazi Puppet Premier; May Alter Plan

Blackout Highlights

Luzon Aides Ferried by Air Raiders

U. S. Bomber Expedition to Philippines Returns with Besieged Army Officers

BRITISH BOMBS BATTER FRANCE

Nazis Retaliate With Raid on Inland English Town; Death Toll Feared Heavy

TRUCKS COLLECT CLEANUP REFUSE

Keep City Clean Campaign Speeded, Funds Appeal Made by T. F. McCarthy

Unpaved Juliette Street Disgrace to Municipality, Irate Residents Complain

Taxpayers Incensed by Refusal of Officials to Alleviate "Country Lane" Conditions

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General Campbell stressed that the precision limits of printing, which are usually expressed in the thousandth part of an inch, must be subdivided into the ten-thousandth fraction of an inch to maintain accuracy of gunfire.

The sponsoring manufacturers were American Type Founders; Dexter Folder Co.; Duplex Printing Press Co.; Goss Printing Press Co.; Harris-Seybold-Potter Co.; R. Hoe and Co.; Lanston Monotype Machine Co.; Ludlow Typograph Co.; Mergenthaler Linotype Co.; Miehle Printing Press and Manufacturing Co.; Mohr Lino-Saw Co.; Walter Scott and Co.; Wood Newspaper Machinery Co.; Vandercook and Sons. James Wright Brown presided.

The guests received an interesting souvenir book with articles on the history and function of the Ordnance Department, printed by the Linotype Company.

At a dinner preceding the Ordnance program, tendered by J. T. Mackey, president of Linotype, to General Campbell and his fellow officers, the equipment manufacturers held a brief war-work convention with their new and most urgent customers, the representatives of Uncle Sam.

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The Champion Paper and Fibre Company announces the retirement of Joseph D. Reed, jr., Manager of the company's Cleveland Office. C. F. Chaplin, who has been with the company for several years at Hamilton and Chicago became manager of the Cleveland Office May 15.

Appoints Consultant on Purchases

Public Printer A. E. Giegengack of the United States Government Printing Office has announced the appointment of Eustis E. Mossberger as Consultant on Purchases for the Office. The duties of Mr. Mossberger in this newly created position will be to receive and interview all callers at the Government Printing Office who desire to see the public printer, the deputy public printer or any other official or employee of the Office with reference to the possibility of procuring contracts for printing and binding, or for equipment and consumable supplies. He has been given authority to speak definitely for the public printer in all matters pertaining to such policies and procedures and to give to anyone who seeks it all information available for public distribution concerning these matters.

Spartan Heavy Foundry Type

American Type Founders has announced Spartan Heavy which is designed to supplement Spartan Medium and Black type face series. Spartan Heavy is available in fifteen sizes from 8 to 120 point and is offered in three-part fonts consisting of capitals, lowercase and

ATF Spartan Heavy

figures, any one of which may be purchased separately. Decimal figures in sizes from 18 to 72 point and fractions in sizes from 12 to 72 point are cast to align with the regular figures; and advertising figures case on space-saving "title line" are made in sizes from 18/14 to 72/60 point, making the Spartans one of the most complete type series available.

Specimen folders are available.

PRINTING PATENTS REPORT

Covering Patents Issued March 31, April 7, April 14, April 21

This data is compiled exclusively for *Printing Equipment Engineer* by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading continuous from the last published issue of this magazine.

For copies of patents listed here, specify the patent numbers and send 10c each (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,277,834. PLASTIC BINDER, of the type formed from celluloid, pyroxylin, etc., and comprising a continuous back portion from which a number of fingers or teeth extend, the fingers and the back forming loops in the finished binder. In the present binder, the back of the binder is the curved part of the loop while each tooth has a flat front part for receiving the pages. As a result, the opposite end of the stack of pages is straight, as distinguished from the usual ring type binder in which the edge of the stack of pages opposite the binder, is curved outwardly. Invented by Isidore Spinner, Chicago, Ill. Assigned to Plastic Binding Corp., Chicago, Ill. Application March 11, 1940. 9 claims.

Composing Room:

2,277,825. LINE COMPOSING MATRIX for use in the photographic production of type matter, the matrix comprising a body portion, a character bearing plaque disposed on the body in a plane parallel to its broad sides and a protecting shield overlying the plaque for protecting the character from contact with the fingers. The protective shield has through it an aperture adapted to restrict the exposed surface of the plaque to the area occupied by the character. Invented by Herman R. Freund, Brooklyn, N. Y. Assigned to Intertype Corp., Brooklyn, N. Y. Application July 5, 1940. 13 claims.

2,278,097. TYPOGRAPHICAL SLUG CASTING MACHINE (Linotype), provided with quadding and centering attachments, whereby either or both of the vise jaws between which a composed line of matrices is clamped during the casting operation are automatically moved inward to close onto a line of less length than that for which the jaws are set. According to the invention, an arrangement is provided wherein excess pressure of the justification spring is applied to supplement the pressure of the quadder spring under conditions in which excessive justification is liable to occur. A member of the justification mechanism may be connected with a member of the quadding or line clamping mechanism by means rendered operative by excessive action of the member of the justification mechanism to transmit the pressure of the justification spring to the line clamping jaws. Invented by Richard H. Scott, Enfield, England and Arthur S. Hayward, Altrincham, England. Assigned to Linotype & Machinery Ltd., London, England. Application May 8, 1940. 11 claims.

2,278,098. TYPOGRAPHICAL COMPOSING MACHINE (Linotype). The mechanism may consist of toggle links and lifting members which engage in studs or other suitable members on the magazines or on their base frames. The spreading mechanism may be actuated from the same source as the separating mechanism for the magazines, and these mechanisms may be actuated by the movement of supporting arms used to hold the magazines during removal and replacement. An independent lever may also be provided for this purpose. Conveniently, the toggle linkage itself may be actuated by the rotation of a toggle shaft with which the links are engaged. Invented by Richard H. Scott, Enfield, England and Arthur S. Hayward, Altrincham, England. Assigned to Linotype & Machinery, Ltd., London, England. Application December 10, 1940. 20 claims.

2,279,775. BRAKE FOR ELIMINATING PLAY IN LINOTYPE MACHINES in which a number of cams are positioned on a main cam shaft. The brake is designed to prevent over-running of the shaft in certain positions where, because the cam parts are resiliently positioned on inclined portions of the cams, such over-running is liable to take place. The revolving cam shaft has at least one cam-shaped recess in its braking surface, the cam-shaped recesses preventing over-run of the cams. An expanding member engages the cam shaft and a spreader member is located between the shaft and the expanding member to engage in the braking surface recess and control the expansion of the expanding member. Invented by Hermann Brandenburg, Berlin-Tempelhof and Karl Bienert, Berlin, Germany. Assigned to Mergenthaler Linotype Co., Brooklyn, N. Y. Application June 27, 1940. 12 claims.

2,280,096. LIGHT PERVIOUS PHOTOGRAPHIC TYPE BODY for use in producing photographic copy, comprising a laminated plastic structure formed of a central light-pervious lamination bearing the image of the character to be photographically reproduced and side laminations of material opaque to the light to be employed. These several laminations are secured together to form a unitary type body. These bodies are provided in fonts as in the case of matrices for assembly into a line from which slugs are cast with the desired character thereon for use in printing with ink. They are assembled in the proper position for photographing the images in a holder into which the type bodies are to be inserted and on which they will rest. Invented by George L. Morrison, Evanston, Ill. Unassigned. Application June 3, 1939. 15 claims.

Feeding, Folding, Delivery:

2,278,182. WHB SUPPLY MECHANISM for high speed web presses, whereby the web fed from an exhausting web roll may be replaced with web from a replacement roll without reducing the speed of the machine. The mechanism includes a web deflector adapted to press the running web against an adhesive portion on the web end of a replacement roll, the deflector being manually movable into a pre-pasting position and power actuated by an electrical control. The web supply mechanism also includes improved means for severing the web of an expiring roll after the web of a replacement roll has been joined thereto. Operation of the severing means is coordinated with the joining of the webs, whereby the web will be severed a definite distance back of the point where the join is made, and at approximately the same distance at every operating speed. Invented by Arvid Lundquist, New York, N. Y., Raymond A. Freeman, Hudson, N. Y. and William C. Wieking, Woodhaven, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Original application December 2, 1933. Divided and this application December 31, 1937. 26 claims.

2,278,188. DELIVERY APPARATUS FOR ROTARY WEB PRINTING PRESSES which is adapted to receive and collect a plurality of sheets at normal press speed and then release the collected sheets and deliver them at a greatly reduced speed. Sheets are cut from a freshly printed traveling web by any suitable type of rotary cutter and then are fed successively in predetermined spaced relation to a rotating collecting cylinder. The feeding means and collecting cylinder are rotated or operated at substantially the same speed as the printing press and cutter so that the sheets may be fed thereto and collected in any desired number. For example, if the printing press is operating at a speed of 400 ft. per min. upon a paper web 30 in. wide, it has been found desirable to collect 10 sheets before passing them to the delivery part of the apparatus which may be operated at approximately one-tenth the speed of the collecting cylinder and the

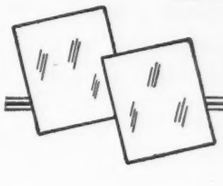
A fine metal for fine screen halftones

Engravers "in-the-know" have been using A-Z Alloy for years in cases where fine screen work on a zinc alloy has been required.

The fine texture of A-Z Alloy, its combination of toughness with smooth, quick etching, its unusual registering qualities, and its ability to stand heat have long been recognized.

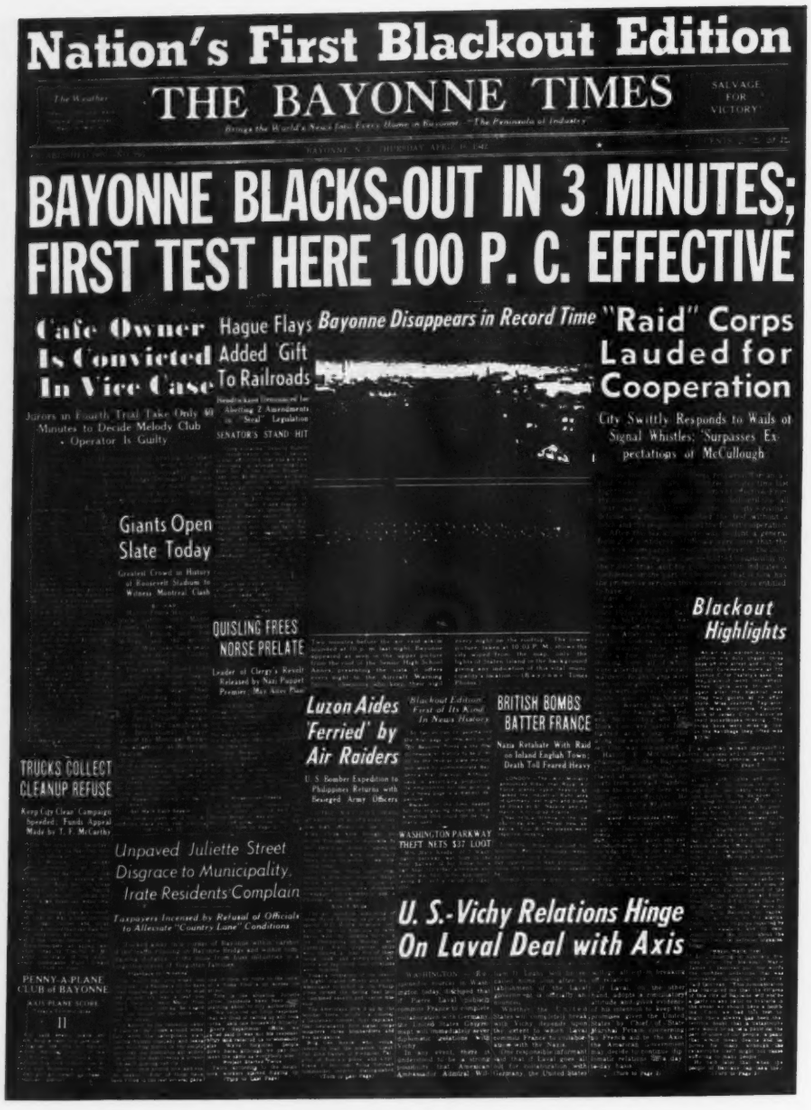
Expert engravers know that a zinc alloy cannot produce as fine a cut as copper, but if copper becomes scarce, A-Z Alloy will do a swell job of pinch-hitting and at a price no higher than its well-known team mate, Zomo Electric Zinc.

You can order A-Z Alloy and Zomo Electric Zinc, plain or Backoted, from leading metal suppliers.



ZOMO ELECTRIC ZINC

A-Z ELECTRIC ALLOY



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AXIS PLANE SCORE

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Spartan Heavy Foundry Type

American Type Founders has announced Spartan Heavy which is designed to supplement Spartan Medium and Black type face series. Spartan Heavy is available in fifteen sizes from 8 to 120 point and is offered in three-part fonts consisting of capitals, lowercase and

ATF Spartan Heavy

figures, any one of which may be purchased separately. Decimal figures in sizes from 18 to 72 point and fractions in sizes from 12 to 72 point are cast to align with the regular figures; and advertising figures case on space-saving "title line" are made in sizes from 18/14 to 72/60 point, making the Spartans one of the most complete type series available.

Specimen folders are available.

PRINTING PATENTS REPORT

Covering Patents Issued March 31, April 7, April 14, April 21

This data is compiled exclusively for *Printing Equipment Engineer* by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading continuous from the last published issue of this magazine.

For copies of patents listed here, specify the patent numbers and send 10c each (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,277,834. PLASTIC BINDER, of the type formed from celluloid, pyroxylin, etc., and comprising a continuous back portion from which a number of fingers or teeth extend, the fingers and the back forming loops in the finished binder. In the present binder, the back of the binder is the curved part of the loop while each tooth has a flat front part for receiving the pages. As a result, the opposite end of the stack of pages is straight, as distinguished from the usual ring type binder in which the edge of the stack of pages opposite the binder, is curved outwardly. Invented by Isidore Spinner, Chicago, Ill. Assigned to Plastic Binding Corp., Chicago, Ill. Application March 11, 1940. 9 claims.

Composing Room:

2,277,825. LINE COMPOSING MATRIX for use in the photographic production of type matter, the matrix comprising a body portion, a character bearing plaque disposed on the body in a plane parallel to its broad sides and a protecting shield overlying the plaque for protecting the character from contact with the fingers. The protective shield has through it an aperture adapted to restrict the exposed surface of the plaque to the area occupied by the character. Invented by Herman R. Freund, Brooklyn, N. Y. Assigned to Intertype Corp., Brooklyn, N. Y. Application July 5, 1940. 13 claims.

2,278,097. TYPOGRAPHICAL SLUG CASTING MACHINE (Linotype), provided with quadding and centering attachments, whereby either or both of the vise jaws between which a composed line of matrices is clamped during the casting operation are automatically moved inward to close onto a line of less length than that for which the jaws are set. According to the invention, an arrangement is provided wherein excess pressure of the justification spring is applied to supplement the pressure of the quadder spring under conditions in which excessive justification is liable to occur. A member of the justification mechanism may be connected with a member of the quadding or line clamping mechanism by means rendered operative by excessive action of the member of the justification mechanism to transmit the pressure of the justification spring to the line clamping jaws. Invented by Richard H. Scott, Enfield, England and Arthur S. Hayward, Altrincham, England. Assigned to Linotype & Machinery Ltd., London, England. Application May 8, 1940. 11 claims.

2,278,098. TYPOGRAPHICAL COMPOSING MACHINE (Linotype). The mechanism may consist of toggle links and lifting members which engage in studs or other suitable members on the magazines or on their base frames. The spreading mechanism may be actuated from the same source as the separating mechanism for the magazines, and these mechanisms may be actuated by the movement of supporting arms used to hold the magazines during removal and replacement. An independent lever may also be provided for this purpose. Conveniently, the toggle linkage itself may be actuated by the rotation of a toggle shaft with which the links are engaged. Invented by Richard H. Scott, Enfield, England and Arthur S. Hayward, Altrincham, England. Assigned to Linotype & Machinery, Ltd., London, England. Application December 10, 1940. 20 claims.

2,279,775. BRAKE FOR ELIMINATING PLAY IN LINOTYPE MACHINES in which a number of cams are positioned on a main cam shaft. The brake is designed to prevent over-running of the shaft in certain positions where, because the cam parts are resiliently positioned on inclined portions of the cams, such over-running is liable to take place. The revolving cam shaft has at least one cam-shaped recess in its braking surface, the cam-shaped recesses preventing over-run of the cams. An expanding member engages the cam shaft and a spreader member is located between the shaft and the expanding member to engage in the braking surface recess and control the expansion of the expanding member. Invented by Hermann Brandenburg, Berlin-Tempelhof and Karl Bienert, Berlin, Germany. Assigned to Mergenthaler Linotype Co., Brooklyn, N. Y. Application June 27, 1940. 12 claims.

2,280,096. LIGHT PERVIOUS PHOTOGRAPHIC TYPE BODY for use in producing photographic copy, comprising a laminated plastic structure formed of a central light-pervious lamination bearing the image of the character to be photographically reproduced and side laminations of material opaque to the light to be employed. These several laminations are secured together to form a unitary type body. These bodies are provided in fonts as in the case of matrices for assembly into a line from which slugs are cast with the desired character thereon for use in printing with ink. They are assembled in the proper position for photographing the images in a holder into which the type bodies are to be inserted and on which they will rest. Invented by George L. Morrison, Evanston, Ill. Unassigned. Application June 3, 1939. 15 claims.

Feeding, Folding, Delivery:

2,278,182. WHB SUPPLY MECHANISM for high speed web presses, whereby the web fed from an exhausting web roll may be replaced with web from a replacement roll without reducing the speed of the machine. The mechanism includes a web deflector adapted to press the running web against an adhesive portion on the web end of a replacement roll, the deflector being manually movable into a pre-pasting position and power actuated by an electrical control. The web supply mechanism also includes improved means for severing the web of an expiring roll after the web of a replacement roll has been joined thereto. Operation of the severing means is coordinated with the joining of the webs, whereby the web will be severed a definite distance back of the point where the join is made, and at approximately the same distance at every operating speed. Invented by Arvid Lundquist, New York, N. Y., Raymond A. Freeman, Hudson, N. Y. and William C. Wieking, Woodhaven, N. Y. Assigned to R. Hoe & Co., Inc., New York, N. Y. Original application December 2, 1933. Divided and this application December 31, 1937. 26 claims.

2,278,188. DELIVERY APPARATUS FOR ROTARY WEB PRINTING PRESSES which is adapted to receive and collect a plurality of sheets at normal press speed and then release the collected sheets and deliver them at a greatly reduced speed. Sheets are cut from a freshly printed traveling web by any suitable type of rotary cutter and then are fed successively in predetermined spaced relation to a rotating collecting cylinder. The feeding means and collecting cylinder are rotated or operated at substantially the same speed as the printing press and cutter so that the sheets may be fed thereto and collected in any desired number. For example, if the printing press is operating at a speed of 400 ft. per min. upon a paper web 30 in. wide, it has been found desirable to collect 10 sheets before passing them to the delivery part of the apparatus which may be operated at approximately one-tenth the speed of the collecting cylinder and the

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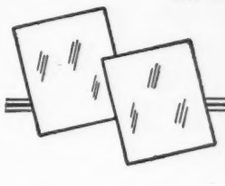

ZOMO ELECTRIC ZINC

A-Z ELECTRIC ALLOY

printing press. Thus, by altering the number of sheets collected on the collecting cylinder, one is able to regulate the actual speed of delivery of the sheets. Invented by Arthur P. Bamford, Millburn, N. J. and John T. Ritzau, Clifton, N. J. Assigned by mesne assignments to Interchemical Corp., New York, N. Y. Application August 3, 1940. 15 claims.

2,278,449. IMPROVED SHEET FEEDER of the type which may be used for a flat bed and cylinder type printing press, and constructed to maintain the high speed of a feeder employing a single reciprocable carriage but eliminating miscarriage of sheets and reducing the amount of floor space required for the feeder. Instead of employing a single reciprocable carriage, the present feeder employs a pair of oscillatable or reciprocal carriers which successively advance the sheets in their feeding movement. These two carriers are so arranged that one of them on a forward movement takes a sheet from the pile and advances it part way toward the press, the other carrier simultaneously moving away from the press to meet the sheet in intermediate position. The sheet is transferred from the first carrier to the second, whereupon the carriers move in reverse direction, the first returning to the pile and the second advancing to register the sheet to the press. Invented by Arthur J. Jenner, Chicago, Ill. Assigned to Miller Printing Machinery Co., Pittsburgh, Pa. Application February 20, 1940. 46 claims.

2,279,269. ROTARY STUFFING MACHINE for automatically combining the sections of newspapers, wherein the transfer of each section to the finally assembled product is accomplished by means of a rotary cylinder which strips or peels off one section from its respective pile in rotary movement. The section is then carried to a device wherein the section is opened and the section from the next unit inserted therein and so on, according to the number of sections. After all sections have been inserted the assembly is carried to a closing device and then conveyed away from the machine. The present invention includes vacuum or suction means for opening up a section. A cam shaped closing device is provided for closing the section after the assembly has been completed. Invented by Isidor Tornberg, Plainfield, N. J. Assigned to Wood Newspaper Machinery Corp., Plainfield, N. J. Application February 15, 1940. 23 claims.

2,279,270. NEWSPAPER STUFFING MACHINE which mechanically withdraws a folded newspaper section from the bottom of a stack without disturbing the position of the superior section in the stack. Means are provided for positively engaging an edge of the section to be inserted and peeling it from the stack, retaining the grasp on the section throughout the period of transport and releasing it in timed sequence at the point of delivery. The engaging operation is followed by rolling or coiling the section compactly during its transfer to a selected delivery station. At the latter position the engagement is broken, allowing the transferred section to fall into place upon the conveyor where it will either form an enclosing section or an inserted section. Invented by Isidor Tornberg, Plainfield, N. J. and Hans C. Jordhoy, North Plainfield, N. J. Assigned to Wood Newspaper Machinery Corp., Plainfield, N. J. Application April 7, 1941. 16 claims.

2,280,370. EXPANSIBLE METAL CHUCK for use with a paper roll tube of the type employed in newspaper presses, which may be readily inserted and removed without elaborate tools. By means of the improved chuck, a roll of paper having a standard paper or fiber core may be cooperatively associated with the driving mechanism of a pasting and feeding machine without the necessity of using metal cores in the paper rolls. The chuck may be locked in its expanded position so that there is no possibility of becoming loose inside the paper roll core when it is used in the press room. Invented by Franklin P. Bennett, Seattle, Wash. Unassigned. Application October 14, 1940. 10 claims.

2,280,663. ROTARY CONVEYING MECHANISM for conveying the products of printing machines, including a rotary carrier or cylinder having gripper members to grip the leading end of the product and carry the product around with the carrier as it rotates. Invention is more particularly concerned with means to strip the product from the carrier. These means comprise a stationary abutment, a stripper component carried by the carrier and adapted to grip the tail end of a product between itself and the abutment and means to move the stripper component relatively to its carrier to bring it momentarily to rest during its period of co-operation with the abutment, the co-operation between the abutment and the component operating to cause the product to be pulled from the gripper members on the carrier. Invented by Cecil G. Quick, London, England, and William A. Whitehead, Fullwood, Preston, England. Assigned to R. Hoe & Co., Inc., New York, N. Y. Original application November 10, 1938. Divided and this application July 27, 1940. 10 claims.

Miscellaneous:

2,277,724. APPARATUS FOR CLEANING PRINTING ROLLS so that the rolls may be reused. The roll is mounted on a chuck and adjustable tailstock so that it may be readily rotated. Adjacent the mounted roll is an adjustable carriage with spaced idler rollers adapted to engage the printing roll surface as it is rotated. One of these rollers has a curved surface so that it will produce a kneading action as it rolls over the printing roll, causing any ink absorbed by the roll material to come to the surface. Disposed between the spaced rollers is a buffing disk of felt material which buffs the surface of the printing roll after it has been kneaded. Simultaneously, a stream of cleaning fluid is played on the roll surface, whereby any ink brought to the surface of the roll is acted upon by the cleaning fluid and buffed off by the buffing wheel. Following this, the other roller, having a tapered surface, is passed over the printing roll, squeezing out the ink and the remaining cleaning fluid, leaving a clean surface. Invented by Charles F. Smith, Cicero, Ill. Assigned to Rapid Roller Co., Chicago, Ill. Application December 13, 1937. 9 claims.

2,278,973. PROCESS OF PREPARING DYE PASTES AND POWDERS of anthraquinone vat dyestuffs of the class consisting of those quinoid dyestuffs containing the pyrene or perylene nucleus and those of the anthrimide-carbazole series in a uniformly fine, micro-crystalline form suitable for general application purposes, even when employed in pastes of high color-solids content. It has been found that certain dyes of the anthraquinone vat dyestuff class, such as the dyes of dibenzanthrone, isodibenzanthrone, and those of the anthrimide-carbazole series, which are completely precipitated from concentrated sulfuric acid within a narrow acid concentration range, are precipitated from sulfuric acid solutions in a very uniform micro-crystalline state by the addition of hydrated inorganic salts to the sulfuric acid solution of the dyestuffs. The vat color pastes prepared by this process are particularly suitable for padding and, in the printing of fabrics, they are claimed to give even prints of good strength. Invented by Clifford E. Carr, Penns Grove, N. J. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application June 10, 1939. 9 claims.

2,279,439. LACQUER COMPOSITION based on the discovery that nitrostarch and polyvinyl acetal acetate yield a quick drying lacquer having the transparency and lack of color of a polyvinyl acetal acetate film and drying in much shorter time. In the presence of volatile solvent mediums, these lacquer compositions may be used for printing inks, lacquers for stencils, etc. Invented by Walter D. Bowlby, Allentown, Pa. Assigned to Trojan Powder Co., Allentown, Pa. Application September 30, 1938. 1 claim.

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2,279,496. SILK SCREEN STENCIL PASTES which are free flowing through and under the silk screen. Example for medium red paste: Alkyd resin A. (62% linseed oil modified glycerol phthalate)—25 parts; Alkyd resin B. (30% linseed oil, 15% Chinawood oil glycerol phthalate, 60% solution in hydrocarbon solvent)—26 parts; Cobalt drier solution—0.1 part; Inhibitor solution—1.5 parts; Diphenyl guanadine—0.1 part; China clay extender base—29.4 parts; Cadmium red lithophone-medium light—13.8 parts; Cadmium red lithophone-medium—4.1 parts. Invented by Justus R. Sackett, Wynnewood, Pa. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application March 22, 1941. 5 claims.

2,279,949. METHOD OF MAKING DRUGGISTS' GUMMED LABELS of several sizes by combining a title design and legend parts to form a title design paste-up, selecting blank label forms of desired sizes and photographically reproducing the title design paste-up in sizes to conform with the various blank label forms. Thereafter the different sized reproductions are mounted on their respective label forms to form a label paste-up for photographically reproducing them. The negatives of the photographs are employed to make an offset plate by the usual albumin process and the suitable gummed paper may be printed by a conventional offset process. Invented by Arthur C. McCrum, Kansas City, Mo. Unassigned. Application February 19, 1940. 3 claims.

2,280,242. NEW POLYESTER RESINS obtained by esterifying a dicarboxylic acid with a mixture including a polyhydric alcohol and an unsaturated alcohol. The resins are useful in the manufacture of printing inks. Example: 98 parts maleic anhydride, 85 parts ethylene glycol, 200 parts ethylene chloride and 0.5 parts p-toluene sulfonic acid are heated azeotropically until 5-6 parts of water are liberated. The reaction mixture is then treated with 29 parts of methallyl alcohol and heated until no more water is evolved. Invented by Edward L. Kropa and Theodore F. Bradley, Stamford, Conn. Assigned to American Cyanamid Co., New York, N. Y. Application December 13, 1939. 2 claims.

2,280,247. METHOD OF PRODUCING A RESINOUS WAX-LIKE PRODUCT of unsaturated fatty acids and rosin acids by heating tall oil with an acidic catalyst such as a mineral oil, a sulphonic acid or an acid salt of the above, at a temperature within the distillation range of the tall oil and removing by distillation the unchanged organic acids, whereby a wax is produced. The product may be employed in paper sizing and in the manufacture of printing inks. Invented by Ralph H. McKee, New York, N. Y. and Helmer L. Blengsli, Old Greenwich, Conn. Unassigned. Application February 25, 1939. 7 claims.

2,280,256. NEW LOW ACID NUMBER HEAT-AND-OXYGEN CONVERTIBLE RESINS, prepared by esterifying a dicarboxylic acid with a mixture including a polyhydric alcohol and a straight chain unsaturated monohydric alcohol having a terminal double bond. The new resins are useful in preparing printing inks and other products. Invented by Donald G. Patterson, Stamford, Conn. Assigned to American Cyanamid Co., New York, N. Y. Application December 13, 1939. 1 claim.

2,280,507. NEW PHTHALOCYANINE DYESTUFFS, which can be employed for graphic prints. Invention is based on the discovery that phthalocyanines of clear green to greenish-blue shades can be obtained by introducing phenyl groups into the benzene groups. Invented by Berthold Bienert and Sebastian Gassner, Leverkusen-I.G.-Werk, Germany. Assigned to General Aniline & Film Corp., New York, N. Y. Application August 2, 1940. 8 claims.

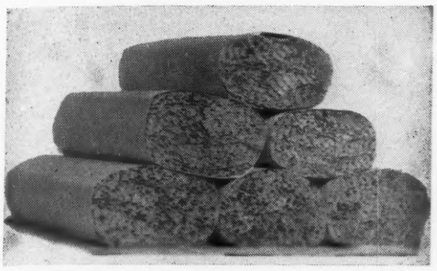
Plate Making:

2,278,291. MATRIX, MOLDED BY COMPRESSION under pressures of 500 lbs. or less from a sheet composition comprising a pulp stock of long and short fibers in proportions varying from about 2 parts by weight of long fibers to 1 - 6 parts of short fibers and containing 40 - 60% (based on the weight of fibers) of a heat hardening type of resin added in discrete particle form, the stock having incorporated 20 - 75% of molding material fines prepared from a heat hardening resin and a fibrous filler and having a surface coating of molding material fines. The matrix is characterized by a smooth floor with sharp definition in its depressed areas and an unfinished mat-like surface with round edge contours for its relief areas. Invented by Hylton Swan, Upper Montclair, N. J. and Sigfried Higgins, Verona, N. J. Assigned by mesne assignments to Bakelite Corp., New York, N. Y. Application November 24, 1936. 11 claims.

2,278,512. METHOD AND APPARATUS FOR ELECTROPLATING an etchable galvanic copper deposit on a printing cylinder without special grinding or polishing steps. According to the invention, an agate roller slides to and fro parallel with the axis of a rotating printing cylinder and rolls on the printing cylinder in such a manner that its position and direction are adjusted freely and automatically, producing frictionless, free rolling. This roller is increasingly loaded during the electro-plating. By this treatment, a copper deposit is obtained, which, after the removal of the cylinder from the electro-plating bath, needs only rubbing dry with a rag or paper to be immediately etchable. Invented by Arnold A. Egli, Zurich, Switzerland and Carl Bokenkamp, Hamburg, Germany. Assigned to Langbein-Pfanhauser-Werke Aktiengesellschaft, Leipzig, Germany. Application February 21, 1938. 11 claims.

2,278,751. IMPROVED POURING SHEET especially designed for use in a casting box for casting tubular plates such as those used in newspaper presses. The sheet comprises a thin sheet of spring metal formed on a curve slightly larger than the curve of the inside of the casting

"FLECTO"
Gummed Backing Felt



POROUS — to permit the quick and easy escape of steam, coated with glue that will not slip or leave the matrix under heat. Its adhesive will not crack, peel or crystallize under any climatic conditions. Made in gauges .021, .025, .030 and .035, in sheets 18" x 24". And in gauges .040, .045, .050 and .060 in sheets 18" x 22"— cut in strips without extra charge. Free samples on request.

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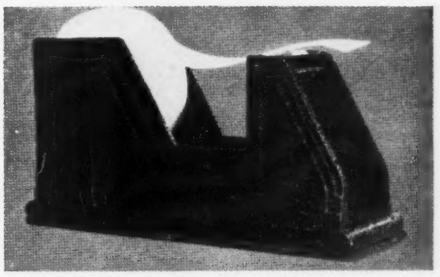

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Simply lay a strip of this SUPER-THIN tape under the cut; press down by hand and the cut is there to stay. When through, the tape strips off, leaving clean surfaces on both cut and base . . . A word on the dispenser—it brings still more speed, convenience and economy to the use of Plate-Tak.

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box and long enough to extend into the top of the box to cover the upper edge of the matrix. A band of metal extends around the sheet and is fastened to its outer surface to stiffen and reinforce the sheet and leave it flexible enough to be spread by the user. The band substantially surrounds the sheet at the top of the box when the sheet is in place. This reinforced construction permits the use of a very thin sheet which will not have sufficient mass to chill the printing edge of the plate. Invented by George W. Watrous, Battle Creek, Mich. Assigned to The Duplex Printing Press Co., Battle Creek, Mich. Application August 10, 1940. 2 claims.

2,280,240. METHOD AND APPARATUS FOR COATING A DRY WAX FORM with a powdered electrically conductive material such as graphite for the purpose of imparting conductivity to an electrotype. The graphite is drawn by suction through a nozzle and impinged against a downwardly facing form. The position of the form permits the excess graphite to fall into a suction cleaner which removes it and carries it to a centrifugal separator where it is subjected to electrostatic repulsion and returned to the feeding chamber. Thus all the excess graphite is recovered and, with the apparatus air tight, the danger of occupational disease is eliminated. Invented by Bertram C. Kathe, Detroit, Mich. Unassigned. Application September 23, 1938. 7 claims.

2,280,481. MACHINE FOR ROUTING STEREOTYPE PLATES. Primary object of the invention is to reduce to a minimum the floor space required for the machine by mounting the plate supporting cylinder directly below the routing tool and providing means which permit the swinging of the cylinder in a horizontal plane to facilitate the receiving upon and removing from the cylinder of the curved plates. Another feature of the invention is the provision in the pedestal on which the routing unit is mounted, of an arcuate portion below the routing unit in which the cylinder is received when the machine is in operating position. Invented by Abe L. Cushman, Concord, N. H. Unassigned. Application November 6, 1940. 4 claims.

Printing Presses and Equipment:

2,278,138. ROTARY INTAGLIO PRINTING PRESS wherein the ink is applied to the printing surface by means of an improved ink applicator which is positioned directly beneath the center of the printing cylinder, the latter provided with an enclosure for covering the printing surface from a point immediately beyond the printing line to the doctor blade so as to eliminate completely an unauthorized passage of ink from the vicinity of the printing cylinder and also, although incidentally, to retard evaporation of ink. Invention also includes a novel mounting for the doctor blade so that it may be moved and maintained in any proper adjusted position regardless of the size of the printing cylinders; and also includes an improved set of operating arms for moving the shields or hood to inoperative position without causing any interference with the doctor blade or other parts of the press. Invented by John B. Paardecamp, Paterson, N. J. Assigned by mesne assignments to Interchemical Corp., New York, N. Y. Application August 3, 1940. 19 claims.

2,278,227. FLOCK PRINTING MACHINE which automatically performs stencil printing of a multicolored adhesive ornamental design area upon the fabric or other surface to be flocked. The stencil printing of the adhesive upon a fabric is performed during the continuous movement of the fabric through the machine, thus expediting the adhesive printing and subsequent flocking operation. Also, any number of different colors may be incorporated in an ornamental design during the continuous movement of the fabric through the machine, there being separate printing units for printing the different adhesive design areas for different colors, and means for accurately aligning color flocked areas forming part of the design with the printing unit of the next colored areas to be printed and flocked, completing the multicolored design. Invented by Norman C. Thackeray, New Rochelle, N. Y. and George N. Lusby, Hightstown, N. J. Assigned to Norman C. Thackeray. Application October 9, 1940. 12 claims.

2,278,312. CYLINDER LITHOGRAPHING OR PRINTING PRESS such as an offset press, in which the pressure between contacting cylinders must be precisely controlled. Purpose of the invention is to provide an improved arrangement in which the spacing and pressure of contacting cylinders of such presses can be properly established regardless of variations in the overall diameters of such cylinders, thereby eliminating the necessity for underlying rubber cylinder covers, and permitting the use of such covers exceeding the standard thickness. An important feature is the provision of means for rapidly determining the proper cylinder spacing. This is accomplished by eliminating or cutting down the bearing rollers, so that they are out of contact during operation, and providing means for adjusting the cylinder spacing in accordance with the overall diameter of contacting cylinders. The accuracy of such adjustment is moreover determined rapidly by providing cooperating cylindrical gauge members mounted at registering ends of contacting cylinders. The aligned cylindrical surfaces of the members are spaced advantageously within the range of ordinary feeler gauges. With this construction, the proper adjustment can be determined with great accuracy and different gauge blades may be provided for rubber cylinder covers or plates of different thickness. Invented by Ray F. Holtz, Mount Lebanon, Pa. Assigned to The Lithograph

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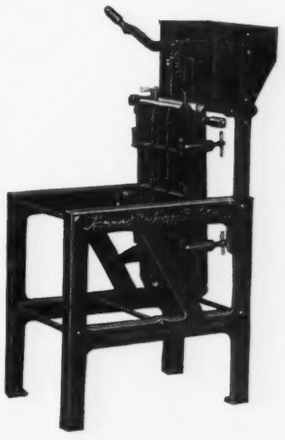
HAMMOND EASYKASTER



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EASTERN BRANCH 71 WEST 23RD STREET, NEW YORK CITY

Press Mfg. Co., Pittsburgh, Pa. Application September 23, 1940. 4 claims.

2,278,387. METHOD AND APPARATUS FOR INKING the surface of an intaglio printing cylinder. Ink is supplied to the surface of the printing cylinder in the form of a thin and regulated film to provide a uniform protective coating over the surface of the cylinder and the cells of the engraving, which coating is of sufficient thickness that the consistency of the ink is not appreciably altered by normal loss of solvent therefrom, but which is also so controlled in amount that the ink will not fall or be otherwise removed from the surface of the cylinder by its normal rotation. Preferably, this layer of ink is applied to the surface of the printing cylinder closely following the printing line. Such a method of applying ink to a printing cylinder may be advantageously combined with methods of preventing evaporation disclosed in Patent 2,272,406. invented by Arthur M. Wickwire, Jr., Mountain Lakes, N. J. Assigned by mesne assignments to Interchemical Corp., New York, N. Y. Application July 2, 1938. 17 claims.

2,278,933. ELECTRICAL CONTROL MECHANISM FOR HIGH SPEED MULTI-COLOR PRESSES which comprises means to apply to the moving paper a succession of series of transversely aligned spots, one for each color being printed, each spot being applied simultaneously with the application of its respective color and in a determined relation to the paper area. Subsequent to the application of the spots, the paper is scanned longitudinally along each path traversed by each spot. The scanning means is located in a plane transversely to the longitudinal axis of the paper and is supplied with a carrier frequency. Modulations incident to the passage of the spots is converted into electrical energy; the modulations being inverted to produce a greater impulse of electrical energy when the spot is scanned than when the imprinted portion of the paper is scanned. Electric energy thus produced is applied across the vertical plates of a cathode ray tube. Means are provided to move the cathode ray beam along a straight line path between the horizontal plates of the cathode ray tube in synchronism with the travel of the moving paper and the frequency of the spots transversely located thereon so as to locate the beam midway between horizontal plates at the exact time the spot passes the scanning means. When perfect registration of the spot occurs at the time the cathode beam is centrally located midway between the horizontal axis, the electrical impulse will cause the beam to be vertically deflected along the vertical center axis of the tube. Invented by Hermann Kott, East Orange, N. J. Assigned by mesne assignments to Speedry Gravure Corp. Application June 2, 1938. 12 claims.

2,278,982. NEW TYPE OF INKING ROLL, backing roll, transfer blanket, etc. in which a polymer substance produced from isobutylene and butadiene provides a very greatly superior resistance to abrasion, flexure, wear, etc. The new material is claimed to have a high resistance to volatile substances so as to permit use of oils and volatile oxygenated solvents or ethylene dichloride, in printing inks which would harm rubber inking rolls. However, the new composition permits use of soap and water to clean the rolls. The original polymer may be compounded according to the following formula:

20% butadiene, 80% isobutylene	100 parts
Blanc fixe	50
Zinc oxide	25
Titanium dioxide	25
Sulfur	5
Stearic acid	5
Altax (benzol thiazyl disulfide)	3
Tuads (tetra methyl thiuram disulfide)	1

Invented by Per K. Frolich, Westfield, N. J. Assigned to Standard Oil Development Co., New York, N. Y. Application December 30, 1938. 15 claims.

2,279,204. IMPROVED PRINTING CYLINDER which facilitates the tight application of a flexible member to the surface of the cylinder and ensures its secure retention thereon. The printing cylinder is provided with a lengthwise gap opening to the surface of the cylinder through a narrow slot and beneath which lies a steel rod. About the surface of the cylinder is wrapped a flexible member such as a rubber blanket or a rubber printing plate and the two ends of the single encircling member are adapted to enter the slot and be secured by the steel rod within the gap. More than one of these constructions may be spaced about the circumference of the cylinder, each slot to grip the ends of two rubber plates. Invented by John P. E. Neilson, Quincy, Mass. Assigned to Meisel Press Mfg. Co., Boston, Mass. Application December 13, 1940. 9 claims.

2,280,091. IMPROVED PRESS BED DRIVE for reciprocating the bed of a flat-bed and cylinder press. In a preferred form of the invention, there is provided a reversing hanger disposed centrally of the bed cooperating with reversing cranks which successively engage the hanger near the ends of the press. The gear drive for the reversing cranks and press cylinder is also located on the side of the press. This construction provides a greater depth of free space across the machine below the cylinder than in previous constructions. The overall height of the press may thus be less than was formerly required. Novel construction of the hanger and reversing cranks as well as the location of the reversing gears at one side of the frame permits the several tracks on which the bed is supported for reciprocation to be spaced uniformly, thereby reducing the deflection of the bed between the tracks by reducing the span between the two inner tracks of a four track press, for example. Invented by Samuel A. Huffman, Avalon, Pa. Assigned to Miller Printing Machinery Co., Pittsburgh, Pa. Application August 26, 1939. 8 claims.

2,280,125. INKING ROLLER of the type used in a distributing system which feeds ink from a supply, breaks it up into a film of uniform thickness and transfers it to a printing surface. The roller has an improved core comprising a tubular central portion from the outside of which a number of heat transfer fins project. Gudgeons are provided integral with the ends of the core to support it for rotation, at least one of the gudgeons having a communicating passage from the interior of the tubular central portion to the outside of the gudgeon. By this construction, the core may be kept at a temperature below the temperature of the room and it is designed for the efficient transfer of heat. Invented by Theodore J. Kauffeld, New York, N. Y. Unassigned. Application May 31, 1941. 10 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Barrister Bldg., Washington, D. C.

Howard N. King, Typographic Counselor of Intertype Corporation, will be a chairman of the clinic on Design and Typography at the Craftsmen's International Convention, Grand Rapids, Mich., August 9, 10, 11 and 12. Mr. King also is Typographic Director of the Maple Press, York, Pa. He is a member of the American Institute of Graphite Arts, was organizer and first president of the York Club of Printing House Craftsmen, past president of the Advertising Club of York. He is Assistant Educational Chairman of the International Association of Printing House Craftsmen.

"Life Begins at Forty", "The Country Lawyer", "One Foot in Heaven", "From Off Island", "The Arts and Man", "Graphic Design", and "Effective Advertising" are some of the better known books of Mr. King's design.

WOOD DRY MATS
ALWAYS UNIFORM

"That's uniform reproduction for you . . .
Just like the results we get from WOOD DRY MATS."

WOOD FLONG CORPORATION
HOOSICK FALLS, N. Y.
551 Fifth Avenue New York City

TECHNICAL LITERATURE

Production and Mechanical Executives wishing to secure copies of the literature described below may do so by addressing the manufacturer direct, or by sending request to Printing Equipment Engineer. *We'll be glad to pass your request on to the manufacturer. Literature is gratis except where noted.*

Series Completed

Mergenthaler Linotype Company has published the fourth and fifth booklets in its series of five on *Linotype Life Extension*. The titles of these booklets are: No. 4 Booklet—*Part III of General Maintenance—Casting;* No. 5 Booklet—*Distribution and Driving*. The titles of the first three booklets are: No. 1 Booklet—*Care and Maintenance of Matrices;* No. 2 Booklet—*Part I of General Maintenance—Routine Checkups, Cleaning and Lubrication;* No. 3 Booklet—*Part II of General Maintenance—Assembling*.

The booklets have been published in 6 in. by 9 in. size and are well illustrated. Now that government restrictions are a reality in the printing industry, the need for conservation and proper maintenance of existing machines has become a *must*.

Copies of the latest two booklets may be secured from Mergenthaler Linotype Co. Those who do not have them may secure the complete set of five booklets upon request by addressing the company at 29 Ryerson St., Brooklyn, N. Y.

Your Own Patent Research Department

How To Have Your Own Patent Research Department in Washington is the title of a letterhead size booklet published by Invention, Inc., Barrister Bldg., Washington, D. C. In the booklet are fully explained the weekly patent reporting service offered by Invention, Inc., to industry in the way of patent research. Such questions as: "Which of 40,000 patents a year relate to your profit?" are answered by this weekly service. In the booklet it is stated that through this service "you can know about all newly issuing patents of verified pertinence to your interests." Copies of the booklet are gratis to manufacturers upon request.

Hear Chemist Wood

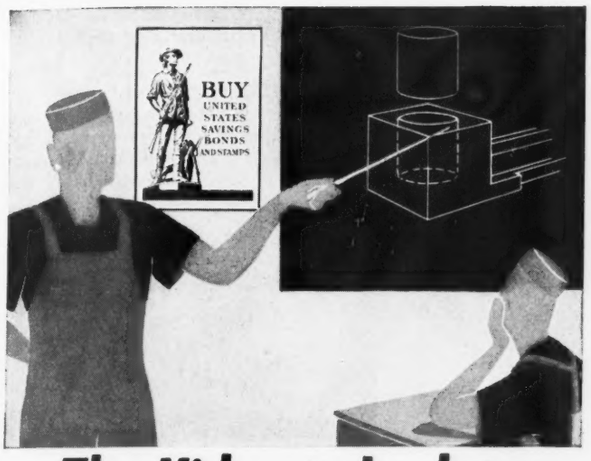
On April 17, before the largest attendance of members and guests of the Connecticut Valley Litho Club, Director of Chemical Research William H. Wood, of the Harris-Seybold-Potter Company, delivered an interesting discourse on the shortage of vital chemicals and their substitutes. After Mr. Wood's talk, a movie produced by the Harris-Seybold-Potter Company was shown.

Fred Kendall, newly elected president, presented on behalf of the officers and members, to Anthony DiNicola, jr., past and charter president of the organization, an appropriate gift in appreciation of Mr. DiNicola's untiring efforts in forming the club.

Publishes Service Flag

In its Wednesday, April 15 issue, The Port Huron (Mich.) *Times Herald* published a four column reproduction of the United States service flag. The printing was done in red and blue ink. The flag could be clipped from the paper and displayed in a window to indicate that a member of the family is serving in the army, navy, marines or coast guard.

War Bonds Boosted by Harris Float—*In one of Cleveland's most spectacular parades, Harris - Seybold - Potter Company took signal honors with its float 'Keep 'em Fighting.' More than a quarter of a million people jammed sidewalks and windows to see the four-hour parade and many of them took home Harris remembrances in the form of candy kisses. Six beauties threw out the tasties from huge Uncle Sam Hats. Louis R. Beck, Harris Sales Promotion Manager, arranged the Harris participation.*



The Kid gets back to NUMBERING FOR PROFIT

- "Now you let me talk, Kid. I'm fed up with ancient ways of numbering wrong. Get your mind on numbering for profit."

  ★ "I know how. Buy a greater number of War Bonds."

- "Sure! But how do wise printers avoid smudging impressions of numbers?"

  ★ "Our numbering machines are built so the plunger can't wobble. No plunger-wobble, no smudged impression."

- "How is plunger-wobble avoided?"

  ★ "Big oval plunger supported on all sides in a one-piece steel block."

- "Why is one-piece important?"

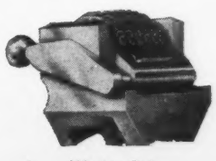
  ★ "What's fastened on can come off. Nothing to work loose in our machines."

- "What make are our machines and why?"

  ★ "We number better with a Wetter."

- "And keep buying War Bonds with the profits."

Wetter Lock-Wheel
One of many models



Wetter Rotary
One of many models

WETTER NUMBERING MACHINE CO.
ATLANTIC AVE. & LOGAN ST., BROOKLYN, N.Y.
Sold by all dealers and branches
AMERICAN TYPE FOUNDERS

ED-2222

ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

Positively No Deformation

of the printing face can occur when Booth's Zink Cut Cement is used for fastening cuts to bases. Only a thin film of the cement is necessary to secure greatest adhesive properties. The most economical cut mounting method in existence for fastening all kinds of cuts to wood or metal base.

• • •

Booth's Black Rubber Rolls

for line-composing machines are made to maintain their cam-turning qualities for maximum length of time. These rolls are made with great care because of their important function in the operation of composing machines.

Trial pair, $1.45 including excise tax. By the dozen, $7.75 including excise tax.

We are suggesting that your firm place on all purchase orders sent to us the properly endorsed statement provided in OPM's A-10 Rating Under Preference Rating Order P-100 for Repair, Maintenance and Operating Supplies.

THE E. A. BOOTH
RUBBER COMPANY
364 ROCKEFELLER BUILDING • CLEVELAND, OHIO

EXECUTIVE Qs

The Association of Publication Production Managers, on April 13 at the Advertising Club of New York, elected as president Thomas C. McBride, Street & Smith Publications, Inc.; treasurer, Michael Figa, *Woman's Day;* secretary, Howard Pearse, Hearst Magazines, Inc. Kent Rhodes, *Fortune*, has been appointed chairman of the program committee and R. J. Mahn of *American Home* was made chairman of the membership committee. Membership includes men directing production of many leading national and business publications. The organization is now in its fourth year.

Announcement has been made that Arthur Dressel has been elected Vice President in Charge of Sales of R. Hoe & Company, New York, N. Y. Mr. Dressel

Now Vice President in Charge of Sales, Arthur Dressel is receiving the congratulations of his many friends and acquaintances.

is well known throughout the printing industry and has been associated with the Hoe Company for 18 years. He has been general sales manager since 1938.

Walter Huber, President of J. M. Huber, Inc., has announced two company executive personnel changes. Ralph C. Persons has been appointed Manager of the Eastern District and Carl Denman has been appointed Manager of the Central District.

Ralph Persons *Carl Denman*

For the past several years, Mr. Persons has been manager of Huber's Mid-West District. Before joining the Huber organization, Mr. Persons worked in various capacities in the newspaper and commercial printing fields and later as a representative of a printing machinery company. As Manager of the Eastern District, which comprises all the Eastern States, Mr. Persons will have his office at the headquarters of J. M. Huber, Inc., 460 West 34th Street, New York, N. Y.

Mr. Denman, for the past four years, has been Manager of Huber's Southern District with headquarters in St. Louis. The Central District, now under his direction, comprises the Mid-Western and Southern States. Before coming to Huber, Mr. Denman worked in the newspaper industry and later, for several years, represented a printing machinery manufacturing company in various midwestern territories. His headquarters will be at 1230 West Jackson Boulevard, Chicago, Ill.

David Donovan has left the Advertising Department of Interchemical Corporation, New York, to receive a commission as ensign in the United States Navy. He is now on active duty at the Naval Air Station, Jacksonville, Fla. Elon R. Brown, formerly with Station KMAC, San Antonio, and the Lambert Pharmacal Company, St. Louis, has joined Interchemical's advertising staff.

Thomas A. Lenci, Jr., General Manager of Eagle Printing Ink Company, Div. of General Printing Ink Corporation, announces that Major Edward A. Luedke, Eagle's Sales Manager, was ordered to active duty on May 11 at Headquarters 2nd Corps Area, Governors Island, New York.

Check TO SAVE
Plates inaccurate in height increase makeready time and reduce press output.
With the No. 9 Hacker Plate Gauge it is easy to find inaccuracy BEFORE plates are made up in the form — and when corrections are least expensive.
The No. 9 Hacker Plate Gauge has large size dial for easy reading. It has a throat depth of 9", taking flat plates up to 18" wide and any length. It will measure curved plates from the largest diameter down to 6".
Plates should be checked when received and corrected as necessary. Complete information on the No. 9 Hacker Plate Gauge and other premakeready equipment will be sent upon request. There is no obligation to you. Write now.
VANDERCOOK
PROOF PRESSES • BLOCK LEVELLERS • HACKER GAUGES
VANDERCOOK & SONS, Main Office and Plant, 900 N. Kilpatrick Ave., Chicago, Ill.
Eastern Branch: 216 East 45th St., New York - Canada: Sears Limited, Toronto

PHOTOGRAPHERS ARGUE

for

GRADATION

in picture

Reproduction

● Nothing pains a real lens artist more than seeing his work come out all harsh blacks and whites. . . He argues for production that preserves the intermediate values from which the "halftone" gets its name. . . If he argues long enough, it often results in a change to Certified Mats.

For dependable stereotyping, rely on Certified Mats, made in the U. S. A.

CERTIFIED DRY MAT CORPORATION

9 Rockefeller Plaza, Dept. M, New York, N. Y.

Certified DRY MATS

HALFTONE ACID RESIST

No. 1 and No. 2 Combinations

Etching and Ben-Day Inks

$3 per half lb. $5.50 per lb.

B. AYLMER, 108 W. Lake St., CHICAGO, ILL.

SAFETY·RELIABILITY·ECONOMY

CLINE

PRESS DRIVES and CONTROL Reels, Tensions and Pasters...

CLINE SYSTEM

CLINE ELEC. MFG. CO.

Chicago, 211 West Wacker Drive
New York 220 East 42nd Street
San Francisco 1st Nat'l Bank Bldg

Economize on

PART REPLACEMENTS

It is more essential than ever that repair parts be ordered with an eye to *less frequent replacement* in the future. Here is where "Star" improved typesetting-machine parts come in.

They have been especially designed to last longer than conventional parts while being fully interchangeable. A case in point is our improved Assembler Slide Bar and Clamp. Our bar will wear *at least twice as long* as the conventional style — and the component parts of the clamp—*infinitely longer*.

It will be a genuine contribution to defense production to become fully familiar with our improved parts. Not only will they last longer, but they will in every case pay additional dividends in increased machine efficiency.

And now a word about quality.

A "precision shop" doesn't turn out shoddy parts. Ours is a "precision shop". Active owner-management not only has been insistent on accuracy in production, but has substituted wherever desirable, more durable material. No trouble or expense has been spared in this direction.

ACE CORD RUBBER BELTS ARE STILL AVAILABLE TO THOSE WHO PREFER THE BEST.

Precision TRADE ★ MARK Parts

LINOTYPE PARTS COMPANY

Factory and Main Offices:

NEW YORK 203 Lafayette Street
WEATHERLY, PA. 314 West 10th Street
KANSAS CITY

CHICAGO 318 West Randolph St.
MINNEAPOLIS 503 Fourth Ave., South
DENVER 1441 Blake St.

GET YOUR FREE
COPY OF THE C&G
No. 3-A SAW TRIMMER CATALOG

See why good compositors everywhere prefer to work with the C&G No. 3-A SAW TRIMMER.

See how the Any-Angle Gauge, Right and Left Hand Miter Vise, the C&G Universal Saw Blade Attachment, the Positive Work Holder, and other exclusive features make work easier, safer, and more productive with the C&G No. 3-A Saw Trimmer.

Write for the facts today.

C&G No. 3-A
SAW TRIMMER

MILWAUKEE SAW TRIMMER CORP.
610 EAST CLYBOURN STREET, MILWAUKEE, WISCONSIN

ACTIVITIES *of ANPA Mechanical Department*

Reported upon by Manager W. E. Wines

IN making his annual report for the Mechanical Department to the American Newspaper Publishers Association, Manager W. E. Wines states that the war has changed definitely the mechanical department's scope of operations. The major part of the Mechanical Department's efforts since mid-August last year has been devoted to the study of the multitude of orders emanating from Washington many of which affect the distribution and use of newspaper supplies. The items concerning these orders which have appeared in the weekly ANPA B Bulletins have resulted from this study. This has been done in collaboration with the Committee on Supplies.

The sixteenth mechanical conference will be held at the Drake hotel, Chicago, Monday, Tuesday and Wednesday, June 8, 9 and 10. The forum style of conducting the sessions which proved so successful at last year's Buffalo Conference will be repeated this year. A session on addressing and mailroom equipment will be held on Monday evening.

The Monday morning session has been set aside for a general discussion of supplies and the numerous restrictive orders pertaining to them, including comments on economies, conservation, substitutes and all such related items.

Manager Wines reports that for the first time since 1933 there will be no commercial exhibits. This decision was reached after a poll of the customary exhibitors had been made, the returns from which showed that the overwhelming majority felt that exhibits should be omitted.

Stereotype Dross Reports.—During the past year, several reports on stereotype metal dross were issued. Report blanks were mailed monthly to member offices for a period of six months. Each of the monthly report forms carried blanks for the insertion of figures and in addition a short questionnaire. The questions were changed monthly. The published reports were as complete as it was possible to make them.

The third report on gadgets devised in newspaper plants was published. This report carried descriptions of 40 contrivances.

The eighth survey of type page sizes and paper roll widths was reported, as was the fifth survey of news types. The latter survey covers the name of the face, point size of face and point size of slug.

Manager Wines states that the quarterly reports on newsprint waste records which are compiled from information submitted by member offices will be continued. The conservation of newsprint and the elimination of avoidable waste are now more important than ever. There is no apparent slackening of interest in the subject. The number of members reporting regularly is not decreasing and letters of inquiry concerning some specific features are being received.

Mechanical and Production Executives are invited to send in to the editor descriptions of things which they have devised to help production or provide a substitute for unobtainable materials.

ALLTONE PROGRESS

(Continued from Page 24)

with all manner of plate or "cut" mountings.

Less than full-page handling has been discouraged for early uses of engravings because the user does not have access to, or control of, the complete methods and he is little further advanced than in 1895, at which time the improvised technique produced uncertain and restricted results.

Another reason for preference in full-page handling is because fractional-page ads can be mounted in multiple, or on the same plate with feature matter, so as not to complicate an already costly ad bank situation. If certain advertisers using small space requested that their zinc cuts be printed from directly, even if they were willing to supply a multiple of them, there would still be the problem of "frozen pages" from a makeover standpoint, delayed press starts and in some instances printing from plates that otherwise would be rejects.

When engraved "cuts" on thin flexible metal or forcibly curved thick ones are used, new bases for each one must be made in harmony with the mechanical levels involved, these levels being affected by the thickness and uniformity of the engraving, adhesive and base. After such plates have served their purpose a salvaging job occurs. This is important from time and cost viewpoints. When the full-page thin metal flexible plate is ready for mounting, the steel bases are always ready and the mounting may be completed in a few minutes. Dismounting old plates is an even faster operation, after which the dummy plate is ready for the next job. "Cut" uses, however, do not permit of simple interlay plate makeready.

Many beautiful color effects have been secured in duotone or with key plates in illustrative Alltone and stereotype line overprint which don't require close register. Various combinations are possible with this mixture of plates and assure economical and efficient reproductions.

For color work where white areas are essential, or color imposition is to be avoided in part or in whole of a subject, the plates may be engraved on standard gauge metal and mounted on stereotype metal bases. Such plates require mechanical bending, but if care is exercised, distortion should be uniform in a set of plates. All dead metal should be left in such plates as an aid to uniform curving and bonding to their bases. Routing and finishing after mounting completes the plate-making operation. Care should be taken to segregate the metal chips which contain zinc, adhesives and stereotype metal.

Where multiple plates are necessary because of more than one press delivery, the full-page thin flexible plate is by far the most economical. However, for Sun-

IT'S EASIER with CHALLENGE COMPOSING ROOM EQUIPMENT

- HI-SPEED QUOINS
- STANDARD QUOINS AND KEYS
- SEMI-STEEL IMPOSING SURFACES
- SEMI-STEEL IMPOSING TABLES
- PROOF PRESSES
- LABOR-SAVING IRON FURNITURE
- MAMMOTH IRON FURNITURE
- STEEL GALLEYS
- GALLEY CABINETS
- PLATE-MOUNTING EQUIPMENT
- STEREO BASES

● You can work a lot faster and do a better job on make-up, lock-up, and proofing when you use Challenge equipment.

It will help to cut costs by reducing waste motion, providing short-cuts, and in promoting general efficiency.

Check the list of Challenge Composing Room Equipment. Learn the importance of each item to you. Write for specific information and prices at once! 398

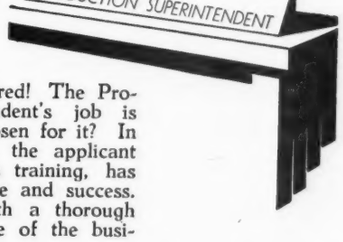
THE CHALLENGE MACHINERY CO.

Main Office and Factory: GRAND HAVEN, MICH. — Challenge — Eastern Sales Office: 50 Church St., NEW YORK

• • • stands for Wishing
That breakdowns will stop
Stop wishing, buy KIMBLES
And come out on top.

Motors by KIMBLE
Distributed by AMERICAN TYPE FOUNDERS
Branches and Sales Agents in 25 Cities

Who WILL GET THE *Job?*



Mr. Jones has retired! The Production Superintendent's job is open. Who is chosen for it? In most instances it's the applicant who, aided by his training, has achieved prominence and success. He is the one with a thorough technical knowledge of the business.

PRACTICAL TRAINING IN *Publishing and Printing*

Prepare for the IMPORTANT jobs in the printing field. The broad instruction offered by this school starts with basic fundamentals. It includes actual working practice with modern equipment and devices. Graduates enter printing with the confidence of a sound training.

Investigate Now—For detailed information, write to DEPARTMENT OF PUBLISHING AND PRINTING.

Rochester ATHENAEUM and MECHANICS INSTITUTE

• ROCHESTER NEW YORK •

Special Molding Combination

For a limited time only, we are offering

4 - Metro Medium Cork Blankets,
21" x 25" x 1/4"
and
1 - Superior Red Fibre Molder,
21" x 25" x 1/16"
For only $9.75

or

4 - Superior Hard Cork Blankets,
21" x 25" x 1/4"
and
1 - Superior Red Fibre Molder,
21" x 25" x 1/16"
For only $10.75

Cork is Getting Scarce—Better Order Now!

Limit Four of the Combinations to Each Customer.

American Publishers Supply
17 Stewart Street Lynn, Mass.

day supplement, insert or special runs where a minimum of plates will suffice, many elaborate but more costly uses of engravings may be justified. If the run is very long, such plates as carry stereotyped characters may be nickel-faced to avoid replating while the engravings are still good for more impressions.

The present war situation and the Pacific Coast's "front line" have resulted in summing up the stand-by values of Alltone, aside from its possible worth in the event the composing and stereotype departments must be dark for a time. Sabotage or other impairment of the gas supply would affect line-composing and stereotype metal pots greatly. Some artificial gases are procurable now, but an effective enemy action would affect that supply also. Electricity, however, probably would be the last to be put out of commission because of its many sources of origin and cross-line connections.

One stand-by development (as soon as the emergency is known) would be to immediately print a sufficient number of thin metal plates, using cold top enamel and about 60 line screen afterwards, developing and storing them. Care should be taken not to draw the dots too fine so that fast etching may be done later—requiring not more than two "bites".

When the page proofs or layouts arrive in the engraving room, line shots are made of them and the films overprinted on the previously prepared plates, using albumen coating for the second printing. The pages may be assembled from line work, hand-set type, typewriter copy or line-casting machine proofs if such machines have electrically heated crucibles and, of course, proofs from standing ads, electros or zincs. If the standard page proofs or layouts are to be reduced photographically to tabloid size, affording two-up on one Alltone plate, then over-setting of some characters might be desirable to offset over-reduction of them in the final printing.

There are quite a number of Alltone licensees sufficiently equipped to produce an 8-page two-off or 16-page Alltone tabloid in such an emergency. By avoiding halftones and proofs containing halftone dots, film stripping would be obviated by using line shots only and would serve to speed up production greatly.

Ads of "new business" classification and small space now enjoy regular schedules on Sunday magazine Alltone feature pages. National advertisers might well utilize this medium economically and with uniform high quality reproductions—particularly users of illustrative copy. At least one newspaper has established a minimum of 1600 lines Alltone reproduction r.o.p., requiring only reproduction proofs from the advertiser. This should be of interest because of the time element and the present priorities involved. The elimination of plate generations represents a saving in materials and time and better printed results from original engraved plates are assured.

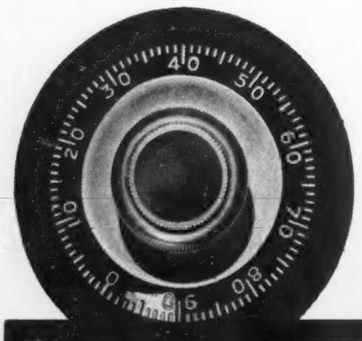
Some individual Alltone plates have served the same retail store interests in two different cities, by first being used in one location, dismounted and then mailed to another. Full-page Alltone plates carrying features or ads in whole or mixed ratios could be used in similar manner.

All that is required of newspapers to enable them to more fully utilize original engravings for direct printing purposes is to cooperate in the establishment of uniform plant routine—one affording sufficient flexibility to permit of local variations while at the same time broad enough to permit acceptance of feature and ad copy from national sources, intended to be reproduced through the use of original engravings requiring a uniformity of reproduction methods.

Brueshaber Resigns

Martin W. Brueshaber has resigned as president of The Goss Printing Press Company and will retire after 45 years with the firm. Mr. Brueshaber has been president of Goss since 1933. He is credited with being instrumental in the origination of many mechanical improvements in Goss presses. He is a member of the American Society of Mechanical Engineers.

R. C. Corlett, vice president and treasurer, has been appointed executive vice president by the board of directors and will head the company until the next annual board meeting. Mr. Corlett has been with the firm for 23 years, serving in sales, engineering, and executive capacities.



THE RIGHT COMBINATION

Cushion Cork
PAT. 2,207,999 IN COMB. WITH TINGUCORK

&

TINGUCORK
PAT. 2,207,999 IN COMB. WITH CUSHION CORK

Patent No. 2,207,999 Combination now makes it possible for pressroom operators to secure Superior Cork Packing in a wide range of gauges with the combined advantages of Tingucork's density and Cushion Cork's resiliency to compensate for plate irregularities and mechanical conditions.

"CUSHION CORK"— Called the safety blanket because its high resiliency allows it to accept extreme compressive stresses, such as web breaks, and still immediately recover its original size or gauge.

"TINGUCORK" — Of greater dens than Cushion Cork; *must always* be used as a companion blanket with Cushion Cork where a Drawsheet provides the printing surface.

TINGUE BROWN AND COMPANY
114-120 EAST 23rd STREET, NEW YORK, N. Y.
1227 WABASH AVENUE, CHICAGO, ILLINOIS
723 E. WASHINGTON BLVD., LOS ANGELES, CAL.
CANADIAN SALES AGENTS
ROSS WHITEHEAD & CO., LTD.
MONTREAL, CANADA

SWW

End CUTTING EDGE WORRIES!

Special alloy steel that holds a keen cutting edge . . . temper that doesn't draw under the heat of fast feeding . . . toughness that resists shock. Get these advantages by specifying SWW high speed knives.

SIMONDS WORDEN WHITE CO., Dayton, Ohio

S. W. W. KNIVES

Send for this COLOR BOOK

With this book, any group of colors can be located at a glance. All colors are shown in three Ben Day values, as well as solid. There is provision also for easy matching of colors. Send for your copy.

WM. C. HERRICK INK CO., INC. • East Rutherford, New Jersey

Herrick

$325 GET THE FACTS! ON THE NEW Rouse BAND SAW

H. B. ROUSE & COMPANY
2216 N. WAYNE AVE., CHICAGO, ILL.

GENERAL REPAIR OF LINOTYPE AND INTERTYPE MOLDS (ANY KIND, ANY SIZE). PARTS, ETC., SINCE 1912
Makers of Reid Magazine Racks, Etc.
WILLIAM REID & CO., 2271 Clybourn Ave., Chicago, Ill.

100% AUTOMATIC SLUG SAWING

Odd-measure slugs sawed to any measure as ejected from line-casting machine. Fast — accurate — economical. Write for folder and prices.

MOHR LINO-SAW CO.
128 N. Union St. Chicago

MOHR SAW

RICHARDS Saws SINCE 1910

"MULTIFORM"
"ELECTROMATIC"
"DOMORE" "CLIPPER"
SAWS — ROUTERS — DIES
J. A. RICHARDS CO., Kalamazoo, Mich.

BUY AND SPECIFY "AMERICAN"

SYNTHETIC and COMPOSITION ROLLERS
Built for Longer Wear — Better Presswork
AMERICAN ROLLER CO. 1342 N. Halsted St., Chicago, Ill.
225 N. New Jersey St., Indianapolis, Ind. • 1531 Branch St., St. Louis, Mo.

Real uniformity

For better presswork at lower costs . . .

Cromwell TYMPAN

Cromwell Special Prepared Tympan is always uniform. In fact, it is guaranteed not to vary .005 inch in thickness throughout an entire roll. In rolls or sheets, accurately cut to fit any high speed press.

THE CROMWELL PAPER CO.
4801-39 S. WHIPPLE STREET • CHICAGO, ILL.

DUPLEX PRESSES

Semi-Cylindrical • Unitubular
Tubular • High Speed Flat Bed
Flat Bed • Stereo Machinery

The Duplex Printing Press Co.
Battle Creek, Mich.

SYNTRON

"Vibrating"
PAPER JOGGERS

Speed up the Job
Cut Labor Costs
Eliminate Effort

Made in 3 sizes

SYNTRON CO.
577 Lexington Ave., Homer City, Pa.

INVESTIGATE

Cushman Flat and Curved Plate Routers *and* Cushman Offset motors for Line-casting machines

CUSHMAN ELECTRIC COMPANY, 69 So. Main St., Concord, N. H.

Conserve SPACEBANDS AND MATRICES

By regular daily use of the **FW-45 Automatic Spaceband Cleaner** which cleans and polishes 30 line-composing machine spacebands in 45 sec. Get rid of the drudgery of cleaning spacebands by hand, the efficiency of which varies with the person doing the cleaning. Send for illustrated Bulletin in which is described a truly useful machine.

FULLER MACHINE CO., 17 Haigh Ave., Schenectady, N. Y.

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free TECHNICAL INFORMATION and LITERATURE *for you*

Offered by Display Advertisers in PRINTING EQUIPMENT Engineer

For information circle the number on the convenient postage-paid return card corresponding to the paragraph in which you are interested. Give your name and title, company name and address, then mail. Manufacturer or supplier will send mechanical and production executives latest information. Keep informed—there is no obligation.

Composing Room

1 TYPE METAL—Imperial Type Metal explains trading of obsolete and scrap metal for new metal. See advertisement on page 25.

2 COMPOSING MACHINE — Send for specimen sheet showing the Monotype family in which you are most interested. See advertisement on page 1.

3 REPLACEMENT PARTS—Send for your copy of Linotype Parts Co. catalog on replacement parts for linotypes. See advertisement on page 35.

4 COMPOSING MACHINE — Circle this number on the card for information on Karnaks type face. See advertisement on page 3.

5 COMPOSING MACHINE — Mergenthaler Linotype Company will be glad to send you booklets on the Linotype Life Extension Series. See advertisement on page 19.

6 COMPOSING MACHINE — Intertype will send booklets on the care of intertypes and matrices on request. See advertisement on 4th cover.

7 CUT CEMENT — Send 75c for a trial tube of Booth Zinc Cut Cement. See advertisement on page 33.

8 ROUTER - PLANER AND EASY KASTER—Complete information on this equipment manufactured by Hammond sent to anyone. Circle this number on card. See advertisement on page 31.

9 COMPOSING ROOM EQUIPMENT—Complete details on Challenge composing room equipment is offered. See advertisement on page 37.

10 SAW TRIMMER — A new circular on the C. & G. No. 3A Saw Trimmer sent upon request. See advertisement on page 36.

Platemaking

11 DRY MATS — Certified Dry Mat Company offers an interesting booklet on plate duplication with dry mats. See advertisement on page 35.

12 ZINC — Get the informative booklet "Getting Down to Zinc Facts" from Atlantic Zinc Works. See advertisement on page 27.

13 DRY MATS — To see their outstanding points, get a sample of Wood dry mats for newspapers. See advertisement on page 32.

14 MOLDERS & BLANKETS — American Publishers Supply makes a limited time offer on blankets and molders. See advertisement on page 37.

15 DRY MATS — If you want a Burgess Chrome Mat salesman to call, circle this number on return card. See advertisement on page 29.

16 ROUTING CUTTERS—For your copy of the John Royle Catalog 425 on routing cutters, circle this number. See advertisement on page 25.

17 STEREO SUPPLIES—Return post card for latest copy of Eastern Newspaper's catalog on stereotype equipment and supplies. See advertisement on page 29.

18 STEREO EQUIPMENT — Wood Newspaper Machinery Corporation offers reconditioned autoplates, autoshavers and vacuum equipment. Circle this number on card for details. See advertisement on page 23.

Pressroom

19 PLATE GAGES — If you are interested in a No. 9 Hacker plate gage, Vandercook will send complete information. See advertisement on page 34.

20 SCRAP PLAN — Full details on new Miller Scrap Plan gladly given upon request. See advertisement on 3d cover.

21 NUMBERING MACHINES — Wetter Numbering Machine Company offers you a unique booklet, "Numbering for Profit." See advertisement on page 33.

22 OFFSET PRESSES — Harris-Seybold-Potter offers help in maintaining your offset equipment. Take your problems to them. See advertisement on 2nd cover.

23 ROLLERS — Rapid Roller will send information on conservation of rollers and blankets. See advertisement on page 30.

24 PRESS BLANKETS — Tingue, Brown & Co. will gladly send you data on specifications of Tingucork and Cushion Cork, "the right combination." See advertisement on page 38.

Paper and Ink

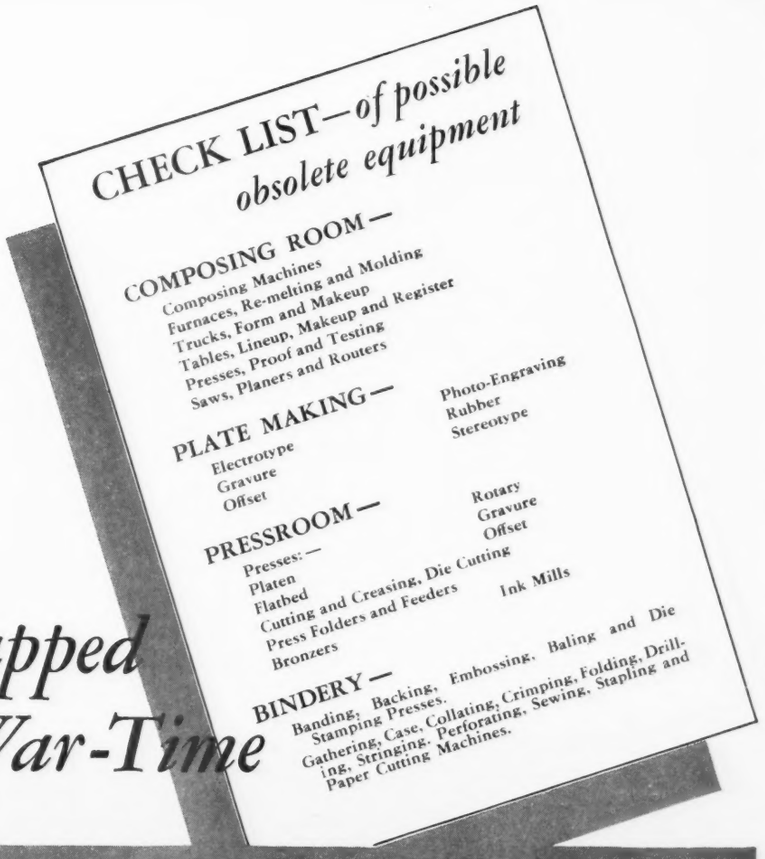
25 PAPER — Champion Paper & Fibre Company offers information on any Champion papers. Make your request on the information wanted card. See advertisement on page 4.

26 INK — E. J. Kelley Co. will gladly send the dope on a trial offer on Wottablacks. See advertisement on page 6.

Miscellaneous

27 MOTORS — Kimble Electric Co. offers a booklet on motors for use in the printing industry. See advertisement on page 37.

NOW *any* OBSOLETE PRINTING EQUIPMENT *may be scrapped under the War-Time*



MILLER SCRAP ALLOWANCE PLAN

PRINTING trade organizations are advising "clear the decks and weather the storm." Discard unproductive equipment; save space, care and upkeep. Travel light and make every ounce of overhead pay. Bolster profits by reducing expense . . . now!

In line with this thought, the War-Time Miller Scrap Allowance Plan now provides for the scrapping of *any* obsolete mechanical printing equipment made of ferrous metal (electrical equipment not included) intended for use in a printing plant.

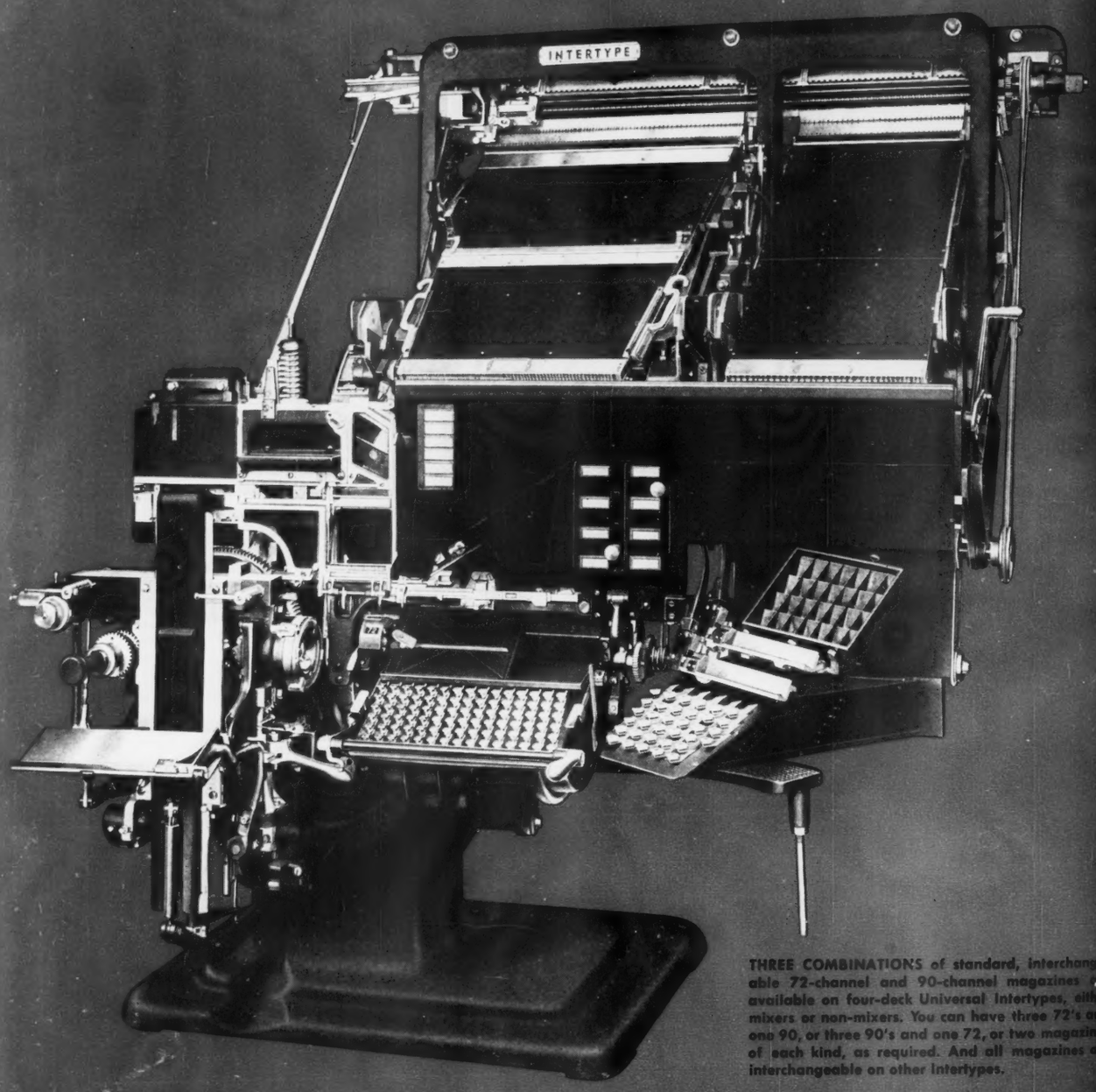
Under this Plan, not only is the printing industry benefited but scrap metal vitally needed for new tanks, guns, battleships, munitions and machine tools is released.

In turn, in ratio to the tonnage of old printing equipment scrapped, and *by previous arrangement* with the Miller Company *before* the old equipment is scrapped, liberal War-Time Miller Credit Certificates are offered. They may be used towards the future purchase of Miller Automatics but there is no obligation to purchase. The cash value of the scrapped equipment is retained by the owner. Actually, three or four times the scrap value of the old equipment may ultimately be realized.

Full details of the Miller Scrap Allowance Plan, under which a great quantity of obsolete equipment has already been scrapped, will gladly be given to reputable concerns upon request. No obligation is involved and some description of the old equipment to be scrapped will aid in giving a more definite and prompt response.

miller

Miller Printing Machinery Co., Pittsburgh, Pa.



THREE COMBINATIONS of standard, interchangeable 72-channel and 90-channel magazines are available on four-deck Universal Intertypes, either mixers or non-mixers. You can have three 72's and one 90, or three 90's and one 72, or two magazines of each kind, as required. And all magazines are interchangeable on other Intertypes.

GETTING THE MOST out of your line composing machine equipment is more essential today than ever before. This is easy enough for those who have a combination Text-Display Universal Intertype, because it not only is 100 per cent efficient on straight-matter composition, but is a wide-range display machine as well. ★ New typesetting machines, like many other products, may be impossible to obtain for some time to come. Intertype suggests, therefore, that you take good care of existing equipment. The advice of an Intertype representative may be helpful. Booklets, too, on the care of machines and matrices will be sent on request. Intertype Corporation, Brooklyn, N. Y.

FUTURA AND VOGUE [illegible]

INTERTYPE

Chicago 1942

A. N. P. A. MECHANICAL CONFERENCE

keep the PRESSES ROLLING

PRINTING EQUIPMENT ENGINEER

JUNE 1942